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## VOLUME 1: FINDINGS

**Racial and Ethnic Group Comparisons  
National Surveys of Drinking and Driving -  
Attitudes and Behavior - 1993, 1995, and 1997**

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16. Abstract <p>Differences in drinking and driving attitudes and behaviors among diverse groups of persons, (i.e., White, Black, Asian, American Indian/Eskimo and Hispanic), were examined by pooling data from the 1993, 1995, and 1997 administrations of the NHTSA's National Survey on Drinking and Driving Attitudes and Behavior. The special analysis is based on responses from 10,453 persons, age 16 to 64 including 7,955 persons of White, (non-Hispanic) descent, 1,026 of Black (non-Hispanic) descent, 743 Hispanics, 274 Asians, and 197 persons of American Indian or Eskimo descent.</p> <p>This report, Volume I: <i>Findings</i> reports respondent's behaviors and attitudes on the frequency of drinking and driving, general attitudes regarding the problem, enforcement, legal limits, prevention, and crash and injury experience. Volume II: <i>Methods Report</i> describes the methods used to conduct the interviews and analyze the data. It also contains a copy of the most recent questionnaire.</p> <p>The findings show that self-reported prevalence of driving within two hours of drinking in the past year is at 28% for Whites, 21% for America Indian/Eskimo, 17% for Hispanic, 16% for Blacks, and 13% for Asians. While Whites as a group are the most likely to drive after drinking, those of Hispanic or American Indian/Eskimo descent are almost twice as likely as others to put themselves at risk by riding with a potentially impaired driver. Hispanics and American Indians/Eskimos are also more likely than other groups to meet the criteria of being a "problem drinker."</p> <p>Of the general driving age public, 98% see drinking and driving as a threat to their personal safety, and 86% feel it is very important to do something to reduce the problem. Whites, however, are least likely to see a problem or feel something should be done about it. American Indians/Eskimos are twice as likely as others to report being stopped for suspicion of drinking and driving, and Hispanics are most likely to report arrests from drinking and driving violations. Those of American Indian/Eskimo or Hispanic descent are less likely than others to feel that following a drinking-driving charge, punishment is a certainty.</p> <p>A majority of those who are aware of BAC levels (56%) support a legal limit of .08 or lower for their state, with the weakest support for an .08 limit occurring among White persons of driving age.</p>			
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# Executive Summary

## Background

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The National Highway Traffic Safety Administration's (NHTSA) mission is to save lives, prevent injuries, and reduce traffic-related health care and other economic costs. The goal of NHTSA's Impaired Driving Program is to meet the U.S. Secretary of Transportation's objective of reducing alcohol-related fatalities to 11,000 by the year 2005.

In order to plan and evaluate programs intended to reduce alcohol-impaired driving, NHTSA needs to periodically update its knowledge and understanding of the public's attitudes and behaviors with respect to drinking and driving. While global programs can be useful, one goal of NHTSA is to identify differences by racial groups so that specific actions can be taken to address the individual needs of different racial groups.

Telephone interviews were conducted with a nationally representative sample of persons of driving age (age 16 or older) in the United States in the Fall of 1993, 1995 and 1997. All three administrations received approval from the Office of Management and Budget (OMB).

This report combines the data from the three separate surveys undertaken by NHTSA to measure the driving age public's attitudes and behaviors regarding drinking and driving to examine differences among those of non-Hispanic White, Non-Hispanic Black, Asian, American Indian/Eskimo and Hispanic descent.

This report highlights the results of 10,453 respondents age 16-64 years old interviewed in these three administrations. It should be noted that due to questionnaire additions and deletions, data is only available for one or two of the administrations for some questions. The reader is directed to note the sample size for each figure and to refer to Appendix A: Methods for the procedure to determine if the differences between two percentages is statistically significant.

## Key Findings

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### Drinking and Driving Behavior

About 26% of persons age 16 to 64 have driven a motor vehicle within two hours of consuming alcoholic beverages in the previous year. These persons are referred to as "drinker-drivers" throughout this report. Males are two and one-half times as likely to have driven within two hours of drinking as are females (37% compared to 15%). Non-Hispanic Whites are the most likely to be drinker-drivers (28%), while Asians are the least likely to have driven within two hours of alcohol consumption (13%).

Non-Hispanic White drinker-drivers account for a disproportionate share of all past-month drinking-driving trips with 84% of all monthly trips, while they account for only 77% of the 16 to 64 year old population. Non-Hispanic Blacks report just 5% of all past month trips, while making up 9% of the population of interest.

On average, drinker-drivers consume 2.8 drinks prior to driving. Persons of non-White and non-Black persuasion consume more drinks on average than their White or Black counterparts.

Drinker-drivers operate a motor vehicle with an average blood alcohol concentration (BAC) of .03, which is well below the legal limit for those age 21 or older; however, about 8% of drinker-drivers are estimated to have had a BAC of .08 or higher. BAC levels for the most recent trip were slightly lower for Non-Hispanic White or Non-Hispanic Black drinker-drivers than for other drivers. However, since more non-Hispanic Whites make any drinking-driving trip, the relative proportion of drinking-driving trips made with a BAC level of .08 or above is higher for these non-Hispanic Whites than for members of other racial groups.

Those of American Indian/Eskimo and Hispanic descent are more likely than other groups to meet the criteria for being a problem drinker<sup>1</sup>. Problem drinkers are estimated to drive with BAC levels of .05 which is about twice as high as other drinking drivers do.

One in ten persons age 16 to 64 has ridden with a driver they thought might have consumed too much alcohol to drive safely in the previous year. One in three of these riders decided that their drivers were unsafe *before* they were riding in the vehicle, but still rode with them. Persons of American Indian/Eskimo and Hispanic descent are almost twice as likely to have ridden with a driver who may have consume too much alcohol to drive safely. American Indians/Eskimos are also more likely to have decided that that driver was unsafe prior to entering the vehicle.

### **Attitudes About Drinking and Driving**

The driving age public sees drinking and driving as a serious problem that needs to be dealt with. Eight of ten see drinking and driving by others as a major threat to their own personal safety and that of their family, and more than four of five feel it is very important that something be done to reduce drinking and driving. Non-Hispanic Whites are less likely to see drinking and driving as a major threat and are less likely to feel something needs to be done about it.

Large proportions of those age 16 and older are supportive of “zero tolerance” for drinking and driving for all drivers. A majority strongly agrees that people should not be allowed to drive if they have had any alcohol at all. Again, non-Hispanic Whites are less likely to support this “zero tolerance” perspective.

Two-thirds of those age 16 to 64 believe that they, themselves, should not drive after consuming more than two alcoholic beverages within two hours. Male drinker-drivers feel that they can safely drive after consuming about three drinks within two hours, while females see their limit as two drinks. An average 170-pound male would still be below the legal limit after three drinks, even if that were on an empty stomach.

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<sup>1</sup> Problem drinker defined on page 5

When perceived self-limits are viewed in terms of estimated resulting BAC levels (based on weight and gender), these drinker-drivers would average a BAC level near .05.

## **Prevention and Intervention of Drinking and Driving**

Drivers under age 21 who drink are most likely to use various strategies to avoid drinking and driving occasions. Going to a place or event where alcohol was present, but not drinking alcohol, and drinking at such a place but not driving afterwards are the most likely strategies to be employed.

More than four in ten drivers age 16 to 64 who consume alcoholic beverages, report at least one occasion where they refrained from driving when they thought they may have been impaired. Most of these persons rode with another driver instead. Non-Hispanic Blacks are more likely than others to stay the night if they have consumed too much to drive safely.

Virtually all (94%) of those age 16 to 64 feel that they should prevent someone they know from driving if they are impaired. Persons of Asian or American Indian/Eskimo descent are less likely to feel that they should intervene with someone they feel has drank too much to drive safely. Three in ten of persons of driving age have been with a friend who may have had too much to drink to drive safely, with males of American Indian/Eskimo descent reporting the greatest number of such experiences. Nine of ten persons who encountered such a situation tried to stop the friend from driving. Intervention was successful about 80% of the time. American Indians/Eskimos who attempted to stop a friend from driving impaired were less successful than their counterparts of other racial groups.

One-third of those age 16 to 64 had ridden with a designated driver in the previous year, with those under age 30 most likely to have done so. Four in ten drivers acted as a designated driver in the past year. Those of Asian descent are least likely to have either ridden with, or been a designated driver. Designated drivers were reported to have consumed less than one-half of one alcoholic drink, on average, prior to driving. Non-Hispanic Whites report about half the alcohol consumption by their designated drivers than do other racial groups.

## **Enforcement**

About 3% of the driving age public age 16 to 64 have been stopped by the police for suspicion of impaired driving. Of these, one in seven (15%) were arrested for a drinking-driving violation. American Indians/Eskimos are more than twice as likely as others to be stopped for suspicion. Despite the higher stop-rate for American Indians/Eskimos, it is Hispanics who report the greatest experience of arrests.

The driving age public generally feels that an impaired driver is more likely to have a crash than to be stopped by police. Consistent with the higher reported personal stop-rate, American Indians/Eskimos are more likely than others to feel that the police would stop an impaired driver.

About two-thirds of those age 16 to 64 feel that current drinking and driving laws and penalties are effective at reducing drinking and driving. American Indians/Eskimos are more likely to perceive these laws to be very effective than do others. Yet, more than two-thirds feel that drinking-driving penalties should be more severe. Non-Hispanic Whites are least likely to feel that the laws should be more severe.

Once charged with a drinking and driving violation, most persons of driving age believe that it is likely that a person will be punished. Despite the higher stop-rate for those of American

Indian/Eskimo descent and the higher arrest for Hispanics, both of these groups are less likely than those of other races to feel that punishment is a certainty.

Three of ten persons of driving age (16 to 64) have seen a sobriety checkpoint in the past year. Non-Hispanic Whites are least likely to have seen a checkpoint, while Black males are most likely to report seeing one. A majority (68%) feel that sobriety checkpoints should be used more frequently. Non-Hispanic Blacks and Hispanics are more likely to support increased use of sobriety checkpoints.

### **Blood Alcohol Concentration (BAC) Levels**

More than four of five (84%) persons of driving age have heard of blood alcohol concentration (BAC) levels, but fewer than three in ten can correctly identify the legal BAC limit for their state.

Non-Hispanic Blacks are least likely to think they know the BAC limit in their state, and are least knowledgeable of all racial groups. Non-Hispanic Whites are the most knowledgeable about their state's BAC levels.

More than one-half (56%) of those 16 to 64 who have heard of BAC levels support the use of a .08 BAC legal limit or stricter in their state. Eight of ten (80%) of those who currently reside in .08 states believe that the limit should remain at .08 or be made stricter, while 40% of those in .10 states feel their state should lower the limit to .08.

Support for .08 is weakest among Non-Hispanic Whites, of whom only half feel the BAC limit should be .08 or stricter, while six of ten non-Hispanic Blacks and those of other racial groups support a BAC limit of .08 or stricter.

### **Crash Experience**

One in ten persons of driving age were involved in a motor vehicle crash as a driver in the past year. Alcohol was involved in about 4% of reported crashes.

Non-Hispanic Black and Hispanic drivers are much more likely than others to be involved in a crash than were other drivers and also more likely to report that alcohol was involved in those crashes.

# Introduction

## Background and Objectives

---

In the United States, more than 300,000 persons were injured and more than 15,935 persons (38% of crash fatalities) died in alcohol-related motor vehicle crashes during 1998 (Traffic Safety Facts 1998, National Center for Statistics and Analysis, NHTSA). In comparison to the mid-1980's, these figures reflect a significant reduction in alcohol-impaired driving, but the toll of injuries and fatalities remains unacceptably high.

The National Highway Traffic Safety Administration (NHTSA), along with many other national, state and local level partners, have aggressively worked toward reducing the incidence of alcohol-related motor vehicle crashes. Passage of the 21-year-old minimum drinking age and zero tolerance laws in all 50 states and the District of Columbia, as well as the fact that 17 states and D.C. now have .08 per se laws is indicative of continuing progress in this area.

The 1997 survey represented the fourth in a series of biennial surveys begun in 1991. The objective of these studies is to measure the current status of attitudes, knowledge and behavior of the general driving age public with respect to drinking and driving. The data collected are used to track the nature and scope of the drinking-driving problem and to identify areas in need of further attention in the pursuit of reduced drinking and driving.

Of particular interest is how these attitudes and behaviors differ among minority groups so that programs and policies can be affected to address the specific needs of various groups.

While a sufficient number of persons of different racial backgrounds is not surveyed in any one year of the study to provide a statistically valid sample for comparison, over several administrations of the surveys an adequate number of persons are represented. This report combines data from the 1993, 1995 and 1997 survey administrations to provide an analysis of the differences in attitudes and behaviors among Non-Hispanic Whites, Non-Hispanic Blacks, Asian/Pacific Islanders, Native Americans/Eskimos and Hispanics.

Since previous analyses of these data have shown that the majority of the drinking and driving problem is among the driving age population under age 65, only those age 16-64 are included in this special analysis.

The 1991 administration was not included in this analysis as substantial changes were made to the survey administration between the 1991 and 1993 administrations and many of the key questions of interest were not included in the 1991 study.

## Methods

Readers are referred to the National Survey of Drinking and Driving Attitudes and Behaviors: 1997 (Balmforth, 1997) report for a fully detailed description of the research methods used.

### *Sampling Objective*

The sampling objective of each of the study waves was to acquire a representative national sample of the general driving age public (age 16 and older). A telephone survey was used to reach the target population and to provide national estimates of attitudes and behaviors regarding drinking and driving.

A two-stage procedure was used to meet the sampling objective by first selecting a sample of working residential telephone numbers in the U.S. (both listed and unlisted residential telephone households) with an equal probability of selection. The second stage involved a random selection of a single respondent from all eligible members of driving age residing in each selected household using the “most recent birthday” method.

Multiple attempts were made to reach each randomly selected respondent. Up to seven attempts were made to reach the household, and once a respondent in the household was identified, up to seven additional attempts were made to reach that person.

While the original three studies included responses from persons age 16 and older, this analysis highlights the findings of persons age 16 to 64. The following numbers of telephone interviews with persons age 16 to 64 were conducted each administration:

1993	3,624
1995	3,490
1997	3,339

Interviewing for each administration took place in the Fall (generally between October and December of the study year). Interviews were completed in both English- and Spanish-language, using a computer-assisted-telephone interviewing (CATI) system.

### *Sample Weighting*

The final telephone samples of persons age 16 and older were independently weighted using a four-stage weighting procedure to equalize selection probabilities (at both the household and the individual levels) and to adjust for non-response bias by matching the profile of surveyed respondents to the known demographic profile of the U.S. population 16 to 64.

### ***Race/Ethnicity Categorization***

The goal of this analysis was to identify the differences in attitudes and behaviors of different racial and ethnic groups. NHTSA was interested in analyzing the differences between groups of persons who are of White, Black, Asian, American Indian and Hispanic origin. Since the data were weighted to U.S. Census Bureau estimates, and the Census defines race separately from ethnicity, the following questions were used to identify the race and ethnicity of the respondents:

1. **ETHNICITY:** Are you of Hispanic origin?
2. **RACE:** Which of these categories best describes your racial background? White, Black or African American, Asian or Pacific Islander, Eskimo Aleutian or American Indian or some other?

While Hispanic is viewed as an ethnicity descriptor rather than a race, and is thus mutually exclusive to race, for the purposes of this analysis, the goal was to look at comparisons of the five groups. Thus, the following categorization was used to achieve a single race/ethnic categorization:

White non-Hispanic	If RACE=White and ETHNICITY= non-Hispanic
Black non-Hispanic	If RACE=Black or African American and ETHNICITY= non-Hispanic
Asian	If RACE=Asian or Pacific Islander
American Indian/Eskimo	If RACE=Eskimo, Aleutian or American Indian
Hispanic	If ETHNICITY= Hispanic

If a respondent noted that they were both Hispanic and Asian or American Indian/Eskimo, the race of the respondent (Asian, American Indian/Eskimo) took precedence over ethnicity (Hispanic).

The number of combined interviews by race/ethnicity of person age 16-64 across the three administrations appear below:

	TOTAL	RACE/ETHNICITY					
		White (non- Hispanic)	Black (non- Hispanic)	Asian	American Indian/ Eskimo	Hispanic	Other/ Unknown
Unweighted	10,453	7,955	1,026	274	197	743	258
Maximum sampling error range	±1.0%	±1.1%	±3.1%	±6.0%	±7.0%	±3.6%	±6.1%

### ***Precision of Sample Estimates***

All sample surveys are subject to sampling error in that results may differ from what would be obtained if the whole population had been interviewed. The size of such sampling error depends largely on the number of interviews as well as other factors such as the complexity of the sample design. For this sample of 10,453 persons age 16-64, the expected maximum sampling error range is approximately +/- 1.0% at the 95% level of confidence.

Due to the stratification and other complexities of the sample design, in some cases (particularly among smaller sub-groups of the population), the error ranges will be slightly larger than those shown in the table will. The table above shows the sampling error ranges by race and at the 95% level of confidence for the entire combined sample. This information is provided to offer the reader a *general* sense of the range of the true estimates. In many instances data is not available for all three administrations, or survey questions were asked of only a subset of the population (e.g. drinking-drivers). True error ranges can be calculated using advanced statistical procedures (such as SUDAAN) using the actual survey data which is available through NHTSA.

### **Data Presented**

The study examines the results from the three combined survey administrations in the following chapters:

- Drinking and Driving Behaviors
- Perceptions of Drinking and Driving as a Problem
- Prevention and Intervention
- Enforcement of Drinking and Driving Laws
- Knowledge and Awareness of BAC Levels and Legal Limits
- Motor Vehicle Crash and Injury Experience

Attempts were made to show the above data for each of the five racial/ethnic groups. However in some instances data are not available for all three administrations (as a number of key questions were added in the 1995 administration), or survey questions were asked of only a subset of the population (e.g. drinking-drivers). In such instances, the racial/ethnic categories may be condensed further to compare Whites, Blacks and Other, or White, Black, Hispanic, Other where sample sizes allow. It should be noted that the precision of the estimates for these analyses is lower than those noted above for the full sample. To help aid in the assessment of sampling error precision, the sample size of presented subgroups is presented for each data chart.

The following table shows the overall measures of drinking and driving used as bases throughout this report.

#### **Race/Ethnicity**

	<b>Total</b>	<b>White</b>	<b>Black</b>	<b>Asian</b>	<b>American Indian/Eskimo</b>	<b>Hispanic</b>
Driver, past year	94%	97%	84%	89%	90%	87%
Drinker, past year	65%	69%	49%	46%	60%	56%
Problem drinker	13%	13%	13%	11%	40%	23%
Drinking-drivers, past year	26%	28%	16%	13%	21%	17%



The following definitions are used throughout this report:

**Drinking-Drivers or Drinker-drivers:** persons who drove within 2 hours of consuming alcohol

**Other drivers who drink:** persons who drank alcohol in the past year, and who drove in the past year, but have not driven within two hours of consuming alcohol

**Problem drinkers:** "Problem drinkers" are defined as those who meet at least ONE of the following three conditions:

- a.) Said "yes" to two or more of the "CAGE" measures;  
"Have you felt you should cut down on your drinking?" ("C" for "cut down");  
"Have people annoyed ("A") you by criticizing you about your drinking?";  
"Have you felt bad or guilty ("G") about your drinking?";  
"Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover?" ("E" for "eye-opener").
- b.) Consumed five or more drinks on four or more days in a typical four-week period; or
- c.) For females, consumed eight or more drinks on a given day in the past four weeks, or for males, consumed nine or more drinks on a given day in the past four weeks.  
(Ewing, 1984; Skinner and Holt, 1987)

It should be noted that problem drinkers are not by definition drinker-drivers, as they may not drive after consuming alcohol.

**Trip:** a single occasion a person drove a motor vehicle

**Drinking-driving trip:** a trip in which a person drove a motor vehicle within two hours of consuming alcohol

**BAC (Blood Alcohol Concentration) Estimate V** (calculated using the following formula):

```
compute mass=bodwgt/2.2046.  
if sex=1 waterpc=.58.  
if sex=2 waterpc=.49.  
metabac=(qn39+(qn41/60)-1)*0.012.  
compute waterkg=mass*waterpc.  
compute alcoz=qn38*.045.  
compute alcml=alcoz*23.36.  
compute alcg=alcml*.806.  
compute alckg=alcg/100.  
if waterkg>0 estbac=100*(alckg/waterkg).  
if estbac deltabac=estbac-metabac.  
if deltabac<0 deltabac=0.
```

Where: bodwgt=weight in pounds  
sex=1-male 2-female  
qn39=time spent drinking (in hours)  
qn41=time from last drink to drive (in minutes)  
qn38=number of drinks consumed



# **Combined 1993, 1995 & 1997 Survey Administration Findings**

## **Chapter 1: Drinking and Driving Behaviors**

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This section provides information on the driving age public's behaviors with regard to drinking and driving. Specifically it covers the following topics:

- Prevalence and frequency of past-year and past-month drinking and driving behavior
- Estimates of total drinking and driving trips
- Characteristics of drinking-driving occasions
- Estimated BAC levels
- Identifying problem drinkers; comparisons with other drinking drivers
- Riding with potentially unsafe drivers

### **Past-Year and Past-Month Drinking and Driving Prevalence**

One in four (26%) persons age 16 to 64 have driven a motor vehicle within two hours of consuming alcohol in the past year. Males are two and one-half times as likely to exhibit such behavior as females, with 37% of males and 15% of females reporting at least one past-year drinking-driving trip. The pattern of males being about two to three times more likely than females to report driving within two hours of drinking is found across all races. [Figure 1-A].

White, non-Hispanic persons are more likely than any other racial group to report having driven within two hours of consuming alcohol, with 28% of this group reporting this behavior. Those of Asian descent are the least likely to report driving after drinking, with just 13% saying they have done so. Between one in six and one in five persons age 16-64 in the other racial/ethnic groups report drinking-driving behavior, including 16% of Black non-Hispanic persons, 17% of Hispanics and 21% of American Indians/Eskimos.

Persons in their 20's are the most likely to have driven within two hours of consuming alcohol in the past year, with more than one-third of those in this age group reporting such behavior. Non-Hispanic Whites age 21 to 29 report the highest prevalence of this behavior with 37% driving within two hours of drinking. This is almost twice the rate of 21 to 29 year olds in other racial groups. [Figure 1-B].

Generally, relatively small proportions of persons age 16 to 20 report driving within two hours of consuming alcohol (about 8%), with the heaviest prevalence among persons in their 20's, tapering off gradually as one ages. While this pattern holds true among non-Hispanic Whites and Blacks, and among Asians, drinking-driving behavior reportedly remains steady among Hispanics through their 60's, while it stays heavy among American Indians/Eskimos into their 30's and 40's then drops off sharply in their forties. [Figure 1-B].

While one of the goals of this study is to obtain past-year estimates of drinking and driving behaviors, the accuracy of specific recall of drinking-driving trips over shorter periods is generally more reliable, particularly for behaviors that occur frequently. Thus, past 30 day drinking-driving trips were also measured.

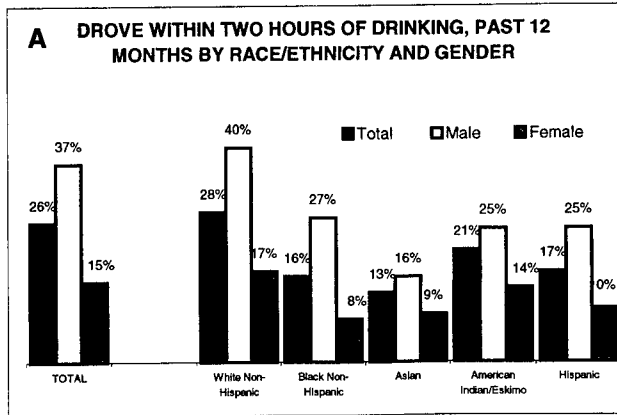
One in seven persons age 16 to 64 has driven within two hours of drinking alcohol within the past 30 days. Relative to reported past-year behavior, about one-half of all past-year drinker-drivers have made at least one drinking-driving trip within the past 30 days. Similar patterns are found to past-year drink-driving behavior by age, race and gender. [Figures 1-C-D].

### **Frequency of Past-Year and Past-Month Drinking-Driving Trips**

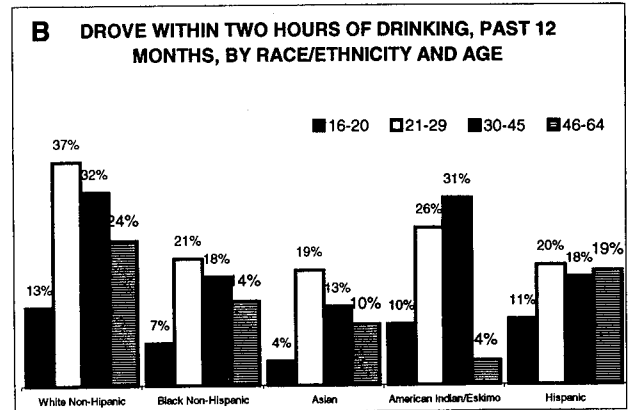
Those who have driven within two hours of drinking alcohol in the past year, report an average of about 11 such trips. Males are not only more likely to report drinking-driving behavior, but those who do drink and drive do so two and one-half times as often as do females. Males report an average of 14.4 drinking-driving trips as compared to 5.9 average trips by female drinker-drivers. [Figure 1-E].

While the sample sizes are small, it appears that Asian women and men report relatively similar numbers of past-year drinking-driving trips, while male American Indians/Eskimos report significantly higher past year drinking-driving trips than their female counterparts. Similar patterns are found for past 30 day trips. [Figure 1-F].

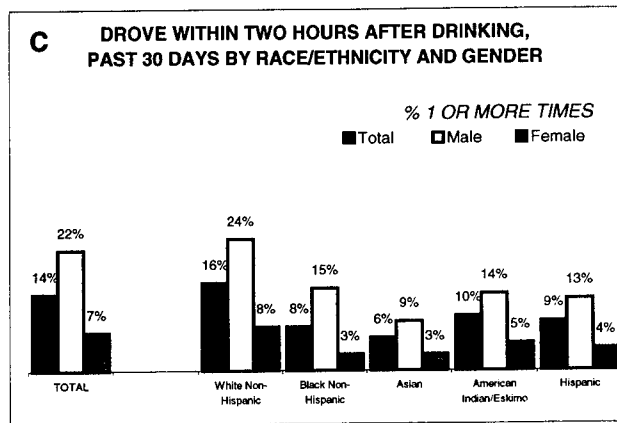
**FIGURE 1: PAST-YEAR AND PAST-MONTH DRINKING AND DRIVING BEHAVIOR**



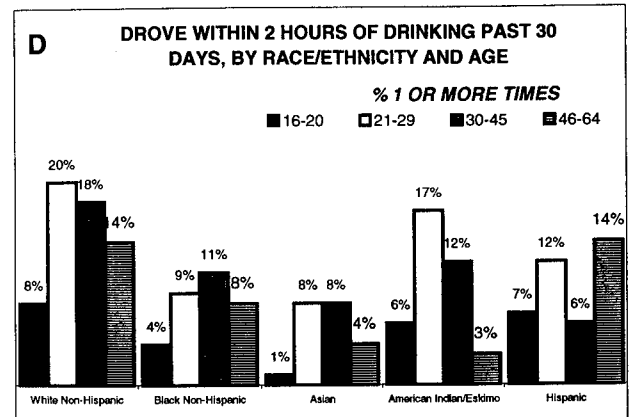
**Qx:** In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: all respondents]



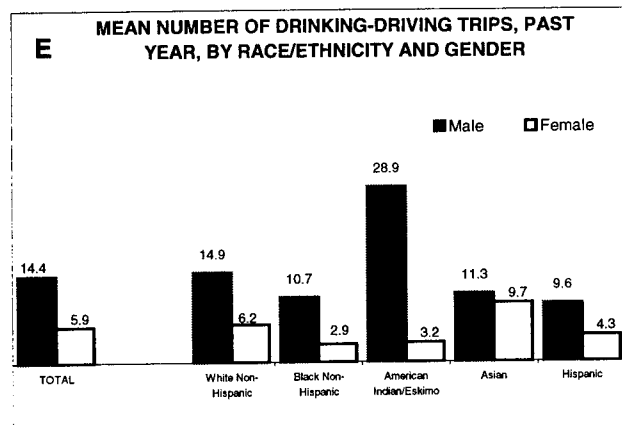
**Qx:** In the past 12 months, have you ever driven a motor vehicle within 2 hours of drinking alcoholic beverages? [Base: all respondents n=4010]



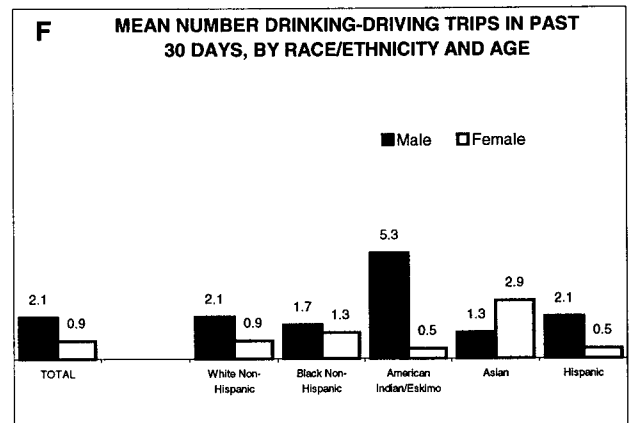
**Qx:** In the past 30 days, how many times have you driven within two hours after drinking any alcohol? [Base: drove after drinking, past year\*]



**Qx:** In the past 30 days, how many times have you driven within two hours after drinking any alcohol? [Base: drove after drinking, past year\*]



**Qx:** How many times in the past 12 months have you driven within two hours after drinking any alcohol? [Base: drove after drinking, past year\*]



**Qx:** In the past 30 days, how many times have you driven within two hours after drinking any alcohol? [Base: drove after drinking, past year\*]

\*Sample base for figures on this page:

	Total	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic
Total	10453	7955	1026	274	197	743
Drove after drinking past year	2703	2277	160	40	42	135

## Estimates of Total Drinking-Driving Trips

---

An analysis was undertaken to estimate the total drinking-driving trips for the driving public based on self-reported data. For the purposes of this analysis, alcohol-impaired driving was defined as any positive response to the question “In the PAST 30 DAYS how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?”

### Percent of Past-Month Drinking-Driving Trips by Race/Ethnicity

Non-Hispanic White drinker-drivers account for the lion’s share of all past month drinking-driving trips, with 85% of all monthly trips. This is a disproportionately high share as this group accounts for just 77% of the total 16 to 64 year old population. In contrast, non-Hispanic Blacks report just 5% of all past-month drinking-driving occasions and account for 9% of all drivers 16 to 64. [Figure 2-A].

### Calculation of Drinking-Driving Trips

For this analysis, the past 30 day measure was felt to be more reliable than the self-reported past 12-month measure. The total number of drinking-driving trips was calculated for each respondent by multiplying the self-reported number of trips in the past month by 12 to obtain a yearly total. The number of trips was summed across respondents and is reported by race/ethnicity in Figure 2-B.

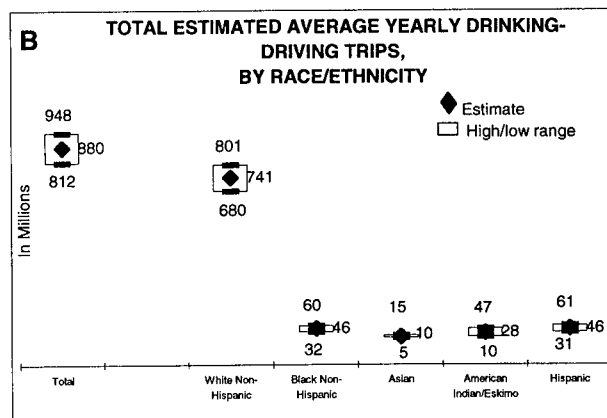
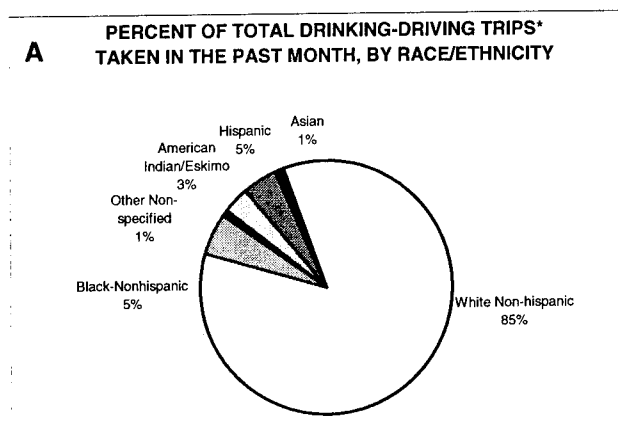
It is important to note that the total trip data presented here may not reflect the true number of alcohol-impaired driving trips made each year for a number of reasons: people may not be able to accurately recall the number of such trips, the previous month may not be indicative of the respondent’s total year drinking-driving trips and people may under-report such behavior if they feel it is socially desirable to do so. This analysis is meant to provide an approximation of the range of possible drinking-driving trips by race/ethnicity. It shows the estimated number of trips and the likely high and low number based on the error range of the estimate.

Overall, drinker-drivers age 16 to 64 made between an estimated 812 million to 948 million drinking-driving trips in the past year (an estimated 880 million trips with an error range of plus or minus 68 million trips). Whites (non-Hispanic) made about 741 million (or 84%) of these total trips, non-Hispanic Blacks and Hispanics each made about 46 million (5%), American Indians/Eskimos made 28 million, and Asians made about 10 million drinking-driving trips. The error range around these total yearly trip estimates by gender and age category is shown at the bottom of Figure 2.

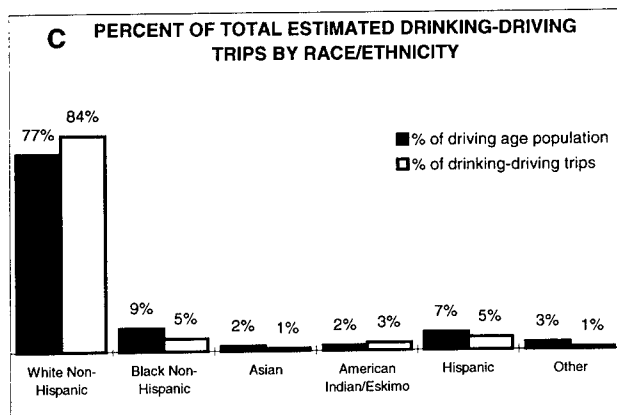
Figure 2-C presents the proportion of total drinking-driving trips made by race/ethnic group in relation to the proportion that each of these groups comprises in the total population. While non-Hispanic Whites account for 77% of the driving age population, they make 84% of all drinking-driving trips. Non-Hispanic Blacks account for only 5% of all drinking-driving trips while they make up 9% of the population. Those in other racial/ethnic groups make up about their fair share of drinking-driving trips.

FOOTNOTE: While past month trips were thought to be a more accurate representation than past 12 month recall, the reader is cautioned that a seasonal bias is possible in such reporting. If the past year measure were used rather than the past month (projected out for 12 months), the total number of trips would be approximately 748 million rather than 880 million trips.

**FIGURE 2: NATIONAL ESTIMATES OF TOTAL DRINKING AND DRIVING TRIPS**



*Qx: In the past 30 days, how many times have you driven within two hours after drinking any alcohol?*  
 [Base: past year drinking-driving trips\* (calculated by multiplying the mean reported number of trips by the number of respondents\*\*)]



\*A drinking-driving trip is defined as an occasion when a driver drove within two hours after drinking any alcohol.

\*\*Sample base for figures on this page:

	Total	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic	Other/non-spec
1993, 1995 & 1997							
Drove after drinking past year	2703	2277	160	40	42	135	49
Error ranges for total number of trips	± 68	± 61	± 14	± 5	± 18	± 15	± 5

Total drinking-driving trips were estimated by multiplying the number of drinking-driving trips in the past 30 days by 12 to yield a yearly estimate for each respondent. Total trips were summed across all respondents and data were projected to the total U.S. population age 16 or older.

## **Characteristics of the Most Recent Driving After Drinking Occasion**

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In order to obtain the most accurate estimates of self-reported drinking-driving occasions, it is important to ask about the experience individuals are most likely to remember. To this end, drinker-drivers were asked detailed questions about their “most recent” drinking-driving experience. Although the most recent occasion may not be reflective of the typical trip for any one individual, in aggregate, information on the most recent trip provides us with a representation of drinker-drivers as a whole.

### **Location of Most Recent Drinking Occasion**

Bars/taverns and restaurants are the origin for nearly one-half (46%) of all drinking-driving trips. Other people’s homes and the drinker-driver’s own home are the starting point for about one in five most recent drinking-driving trips. [Figure 3-A]

Non-Hispanic Black and Asian drinker-drivers are most likely to drink in someone else’s home within two hours of them driving, while those of non-Hispanic White, Hispanic and American Indian/Eskimo descent are about equally likely to drink at a bar, restaurant or someone’s home within two hours of driving.

### **Length of Time Drank on Most Recent Occasion**

On average, drinker-drivers consumed their alcoholic beverages over a period of about 3.5 hours on their most recent occasion of drinking-driving. Non-Hispanic Whites and Hispanics consumed their drinks in the shortest amount of time, while Asian and American Indian/Eskimo drinkers drank for more than four hours on their most recent drinking-driving occasion. [Figure 3-B]

### **Self-Reported Status in Relation to Legal Limit on Most Recent Drinking-Driving Occasion**

About one in ten past-year drinker-drivers perceive that they were over the legal limit for operating a motor vehicle the last time they drove after consuming alcohol. Drinker-drivers of American Indian/Eskimo descent were twice as likely to feel they were over the legal limit than other groups (22% felt they were just over or well over the legal limit), while non-Hispanic White and Black drinker-drivers were the least likely to feel they were over the limit on their last trip. [Figure 3-C]

### **Miles Drove on Most Recent Occasion**

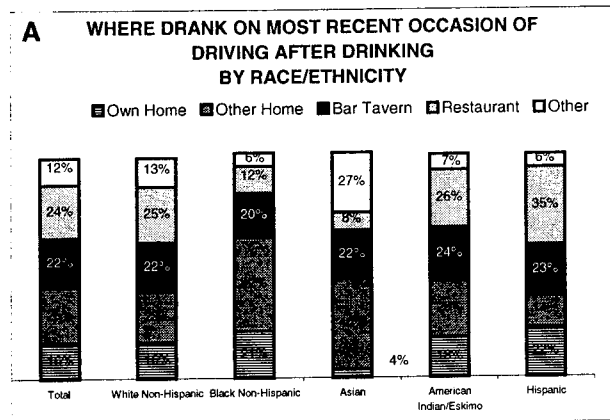
Drinking-driving trips average about 16.1 miles from origin to destination. Non-Hispanic Black drinker-drivers report the farthest driving distances at 21 miles on average, while those of non-White/non-Black racial groups report driving an average of just 8.4 miles. [Figure 3-D]

### **Number of Passengers on Most Recent Occasion**

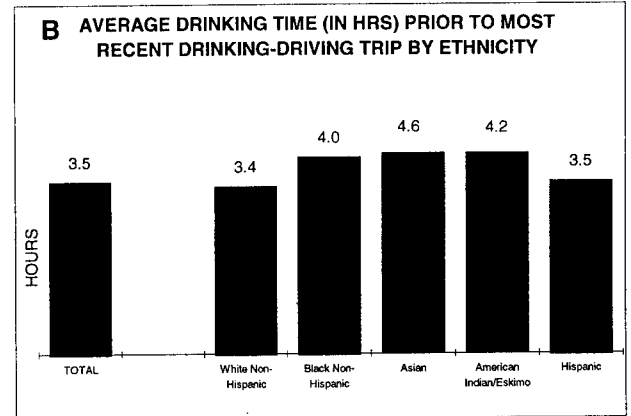
About 52% of drinker-drivers have other passengers in the car with them during these trips. Including those who drive alone and those who drive with passengers, drinker-drivers travel with an average of .79 passengers per trip. Non-Hispanic Blacks are least likely to travel with passengers (42% do), while those of non-White and non-Black race average the most passengers during drinking-driving trips with an average of 1.1 passengers. The number of passengers on a drinking-driving trip has direct impact on the number of persons affected by drinking-driver trips. This was a new question in 1997 and should be monitored in future study waves. [Figure 3-E]



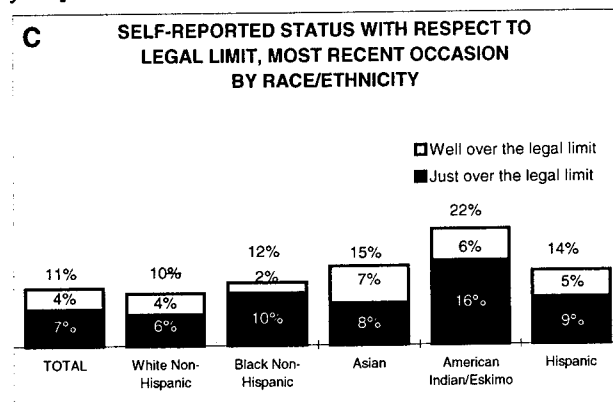
**FIGURE 3: MOST RECENT DRIVING AFTER DRINKING OCCASION**



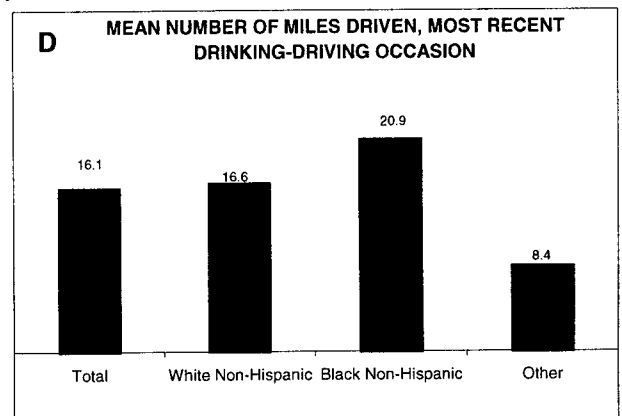
Qx: Where did you drink on that occasion?  
[Base 1993, 1995 & 1997: drove after drinking, past year]



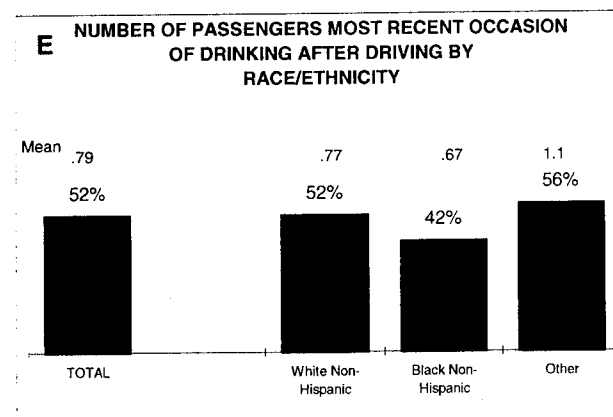
Qx: Over what length of time (in hours) did you have those drinks? [Base: drove after drinking, past year\*\*]



Qx: On this most recent occasion, ... you were well below the limit for drinking and driving, just below, just over or well over the legal limit? [Base: drove after drinking, past year\*\*]



Qx: About how many miles did you drive on this occasion? [Base 1995 & 1997: drove after drinking, past year\*\*]



Qx: How many people, other than yourself, were in the vehicle with you? [1997 only Base: drove after drinking, past year\*\*]

\*\*Sample base for figures on this page:

	Total	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic	Other (Net)
Fig A/B/C Drove after drinking past year	2572	2277	160	40	42	135	--
Fig D	1537	1311	92	--	--	--	134
Fig E	839	730	41	--	--	--	68

## **Characteristics of the Most Recent Drinking-Driving Occasion**

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### **Number of Drinks Per Sitting**

On average, those who drink alcohol report that they consume an average of about 2.8 alcoholic beverages in a typical sitting. Males consumed an average of one additional drink than do women. Differences between gender are more prevalent among those of American Indian/Eskimo and Hispanic descent males in that these groups typically consume an average of almost three more drinks per sitting than their female counterparts. In contrast, Asian women and males consume a similar number of drinks per sitting. [Figure 4-A]

### **Number of Drinks on Most Recent Occasion**

When the most recent drinking-driving occasion is considered, drinker-drivers report consuming about 2.8 alcoholic beverages, with persons of non-White and non-Black racial groups consuming more drinks on average than either White or Black drinker-drivers (3.4 drinks compared to 2.7 drinks on average). [Figure 4-B]

### **Estimated BAC Levels on Most Recent Occasion**

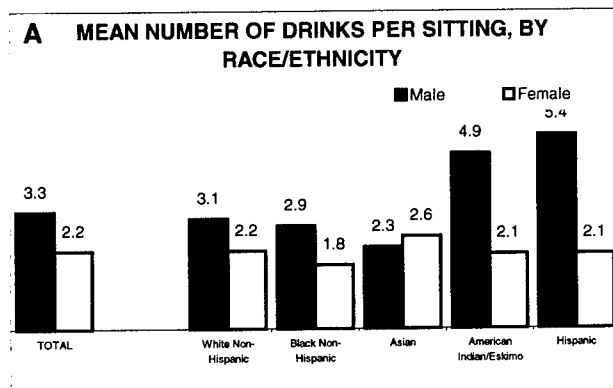
To obtain impairment severity estimates of drinking-driving trips, Blood Alcohol Concentration (BAC) levels were estimated for the most recent drinking-driving occasion of each person who had driven within two hours of alcohol consumption in the past year (see page 5 for BAC calculation).

The average calculated BAC level among past-year drinker-drivers was .03 for the most recent drinking-driving occasion. Mean BAC levels for the most recent trip were slightly higher for non-White and non-Black drinker drivers (.04 compared to .03 for White and Black drinker drivers). [Figure 4-C]

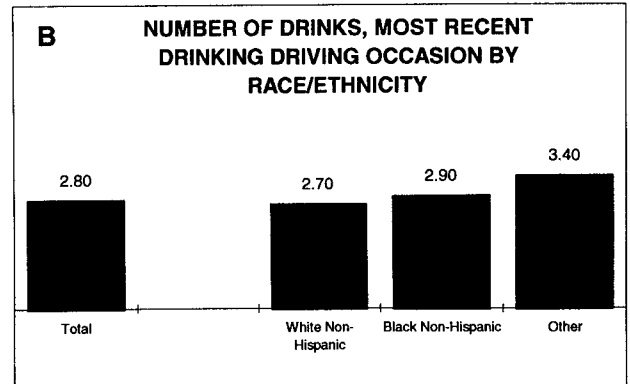
BAC levels do not vary significantly based on where the person drank before driving. [Figure 4-D]

Overall, the vast majority (83%) of drinker-drivers are well below the legal BAC limit for adults when they drive within two hours of consuming alcohol, as they average BAC levels below .05. About one in ten (9%) drive with BAC levels between .05 and .079. About one in 12 (8%) drinker-drivers undertake these trips with a BAC at or above .08. [Figure 4-E]

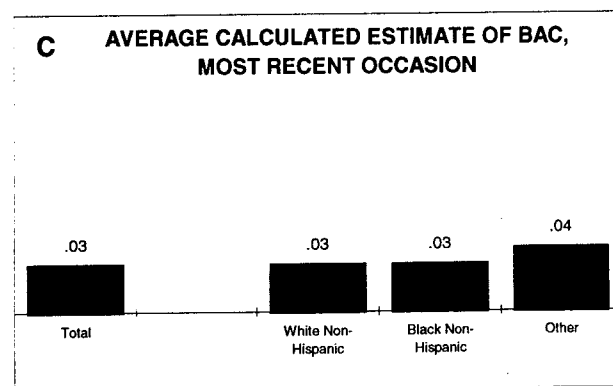
**FIGURE 4: CALCULATED ESTIMATE OF BAC (BLOOD ALCOHOL CONCENTRATION) FOR MOST RECENT DRINKING-DRIVING OCCASION**



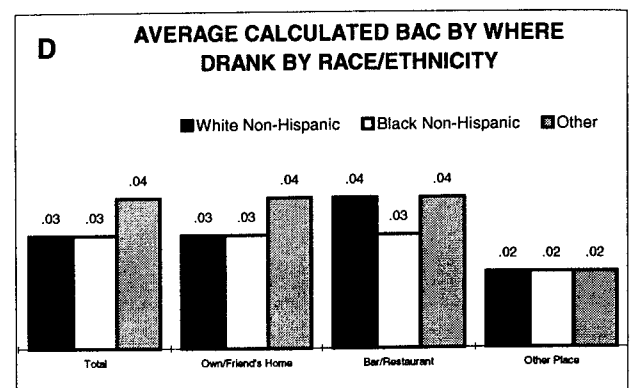
Qx: When you drink [alcoholic beverage drunk most often] about how many [drinks] do you usually drink per sitting?



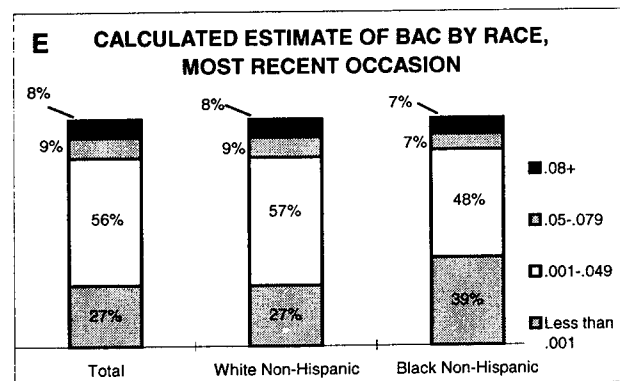
Qx: When you drink [alcoholic beverage drunk most often] about how many [drinks] do you usually drink per sitting?



Qx: On this most recent occasion, ... how many drinks did you have? How long after your last drink did you start driving? Over what time period did you have those drinks? Gender, Age and Weight [Base: drove after drinking, past year\*\*]



Qx: Where did you drink on that occasion? [Base: drove after drinking, past year\*\*]



BAC (blood alcohol concentration) calculated using NHTSA BAC estimation formula using gender, weight, number of drinks consumed, length of time drinking, and length of time between last drink and driving.

\*\*Sample base for figures on this page:

	Total	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic	Other (Net)
Fig A Drove after drinking past year	2572	2277	160	40	42	135	--
Fig B	1531	1302	92	--	--	--	137
Fig C/D/E	1489	1266	88	--	--	--	135

### **Defining CAGE Measures**

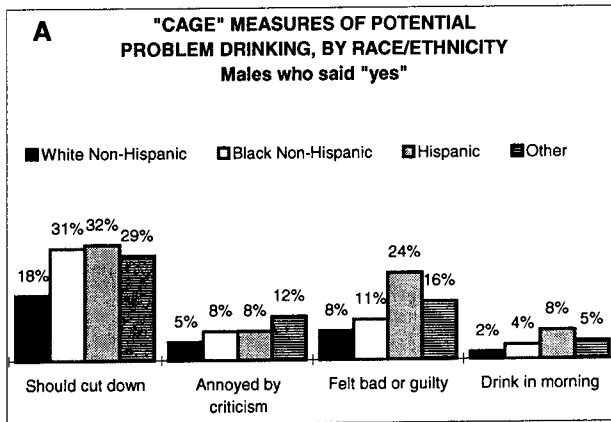
A series of questions was asked of people who drank alcohol in the past year to help identify problem drinking. This series of four questions is represented by the acronym “CAGE” (Ewing, 1998) with each letter representing one of the four questions: “Have you felt you should cut down on your drinking?” (“C” for “cut down”); “Have people annoyed (“A”) you by criticizing you about your drinking?”; “Have you felt bad or guilty (“G”) about your drinking?”; “Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover?” (“E” for “eye-opener”).

### **Differences by Race/Ethnicity and Gender**

Non-Hispanic Whites who drink are the least likely of all racial groups to agree with any of the CAGE statements. About three in ten non-White males who have consumed alcohol in the past year say “yes” that they feel they should cut down on their drinking, while just 18% of non-Hispanic White males agree with this statement. Similarly, significantly lower proportions of non-Hispanic White males say they are annoyed by criticism about their drinking or have felt bad or guilty about their drinking than is true of males of other races [Figure 5-A].

Non-Hispanic White females also report slightly lower agreement with the CAGE measures than their female counterparts of other racial groups [Figure 5-B].

**FIGURE 5: IDENTIFYING PROBLEM DRINKERS**



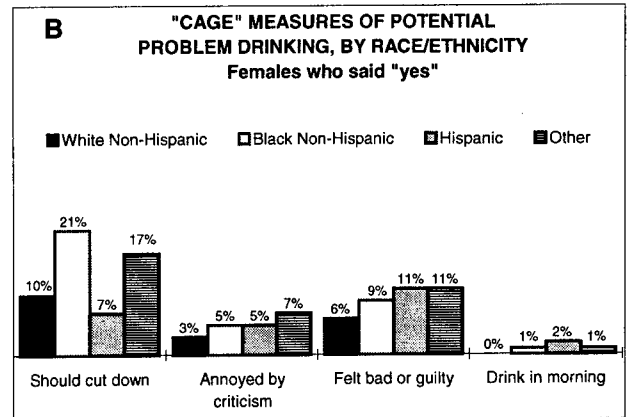
Qx: Have you felt you should cut down on your drinking? ("C")

Qx: Have people annoyed you by criticizing your drinking? ("A")

Qx: Have you felt bad or guilty about your drinking? ("G")

Qx: Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover? ("E")

[Base: Males who drank alcohol in past year, n=3612, White Non-Hispanic n=2869, Black Non-Hispanic n=253, Hispanic n=79, Other n=411]



Qx: Have you felt you should cut down on your drinking? ("C")

Qx: Have people annoyed you by criticizing your drinking? ("A")

Qx: Have you felt bad or guilty about your drinking? ("G")

Qx: Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover? ("E")

[Base: Females who drank alcohol in past year, n=3299, White Non-Hispanic n=2709, Black Non-Hispanic n=254, Hispanic n=77, Other n=259]

\*Drinking-drivers: Drove within two hours after drinking in the past year.

\*\*Sample base for figures on this page:

Drank alcohol past year	Total	Non-Hispanic White	Non-Hispanic Black	Hispanics	Other (Net)
Males	3612	2869	253	79	411
Females	3299	2709	254	77	259

### Defining Problem Drinkers

For this analysis “problem drinkers” were defined as expressing agreement (“yes”) to two or more of the four CAGE measures, or having consumed five or more drinks on four or more days in a typical 28-day period, or consumed eight or more drinks (nine for males) on at least one day in a typical 28-day period.

Overall, about 14% of the drinking public age 16 to 64 can be classified as a “problem drinker.” This is true of 20% of past year drinker-drivers. While the sample size is relatively small (n=69), those of American Indian/Eskimo descent are more than three times as likely to be classified as a problem drinker using this definition, with 40% being classified as problem drinkers. Hispanic drinkers are also more likely than drinkers overall to be classified as problem drinkers (23%). [Figure 6-A]

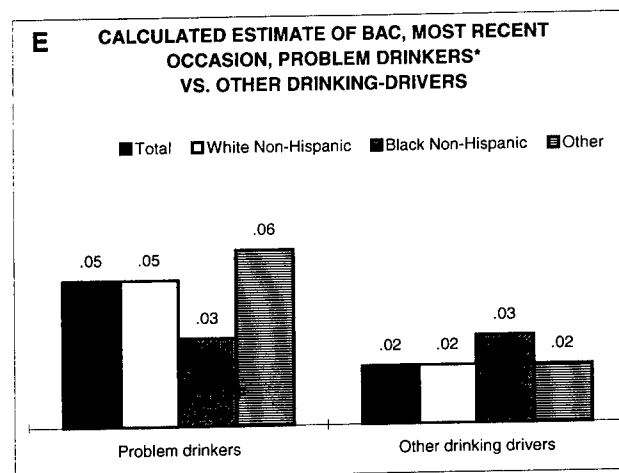
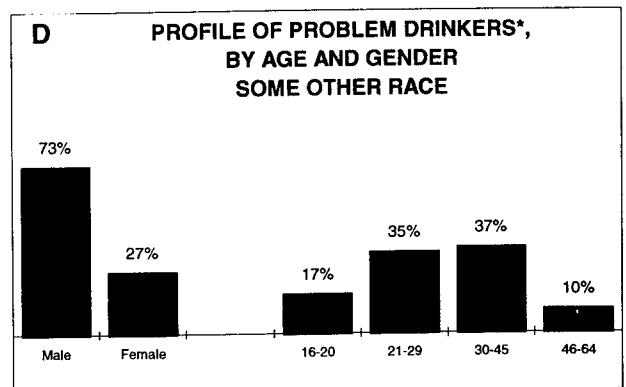
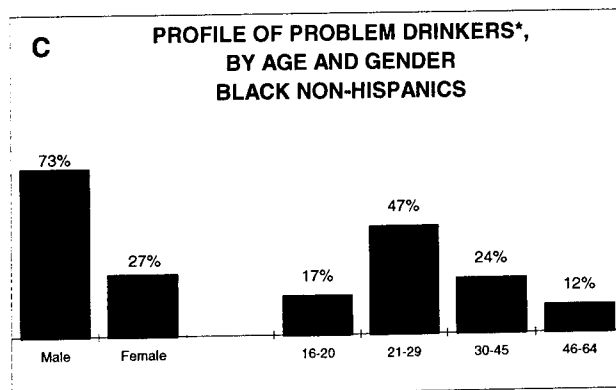
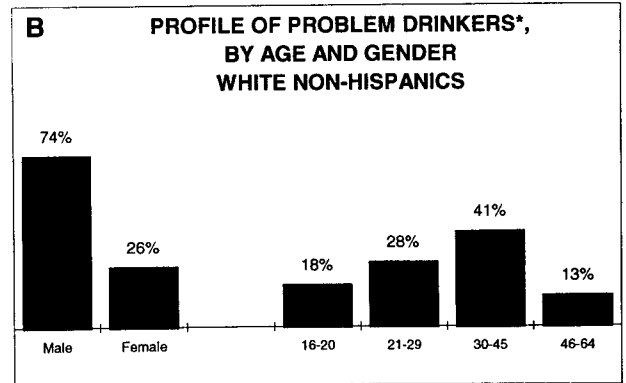
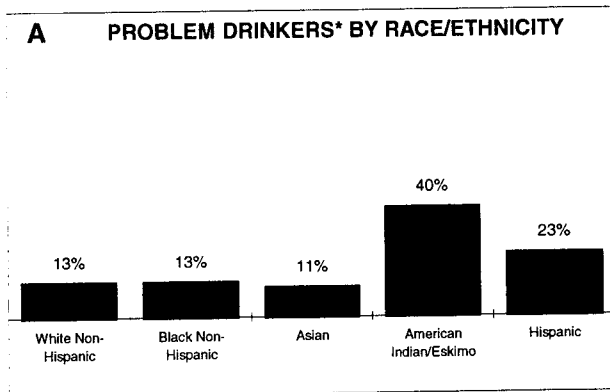
About three of four (73%) problem drinkers are male. The largest proportion of non-Hispanic White problem drinkers are age 30 to 45 (41%), while non-Hispanic Black problem drinkers are more likely to be in their 20’s. [Figure 6-B and 6-C]

Problem drinkers of non-White/non-Black race are equally likely to be age 21 to 29 or 30 to 45. [Figure 6-D]

### Estimated Calculated BAC Level of Problem Drinkers vs. Other Drinking Drivers

Overall problem drinkers are estimated to drive with BAC levels of more than twice that of other drinking-drivers. On their most recent drinking-driving trip, problem drinkers were estimated to have a calculated BAC level of about .05 as compared to a calculated BAC level of about .02 for other drivers who drink alcohol. While the sample sizes are small, this same pattern does not appear to be in evidence between problem drinkers and other driving drinkers who are of non-Hispanic Black race. [Figure 6-E]

**FIGURE 6: PROBLEM DRINKERS**



*\*definition of problem drinkers can be found on page 5.*

**\*\*Sample base for figures on this page: Past year drinkers (1995 +1997)**

	Total	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic	Other (Net)
Total	4298	3476	308	78	69	265	--
All problem drinkers	632	445	40	--	--	--	107
Past-year drinker-driver problem drinkers	307	253	17	--	--	--	37
Other drinker-drivers	1182	1013	71	--	--	--	98

## **Riding with Unsafe Drivers**

---

One of ten persons age 16 to 64 has ridden with a driver they thought may have consumed too much alcohol to drive safely. Those under age 20 are most likely to have been a passenger with someone that they thought might have drank too much to drive safely, with almost one in four riding with a potentially unsafe driver. Reports of such behavior decreases consistently with age. [Figure 7-A]

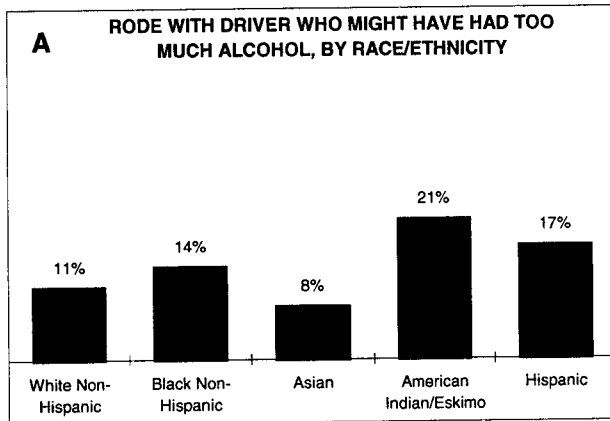
Persons of American Indian/Eskimo and Hispanic descent are most likely to report being the passenger in a vehicle with a driver who may have consumed too much alcohol to drive safely. They do so at a rate of almost double that of other racial/ethnic groups. [Figure 7-B]

### **When Decided Driver Was Unsafe**

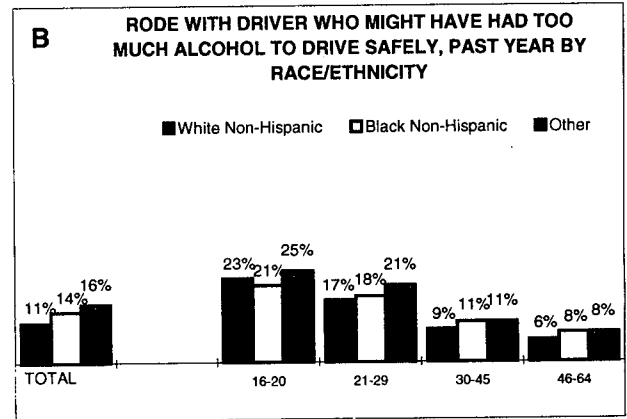
One in three (33%) persons age 16 to 64 who have ridden with someone they thought may have drank too much to drive safely made this assessment *before* they were riding in the vehicle, yet they decided to go with the driver anyway. [Figure 7-C]. Non-Hispanic Blacks and American Indians/Eskimos are more likely to have made this assessment prior to entering the vehicle. About four in ten of these passengers of a potentially dangerous driver decided the driver was unsafe prior to riding, compared to one in three of those in other racial groups.



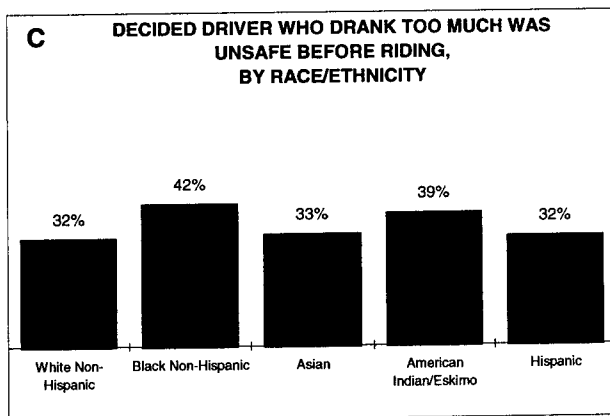
**FIGURE 7: RIDING WITH UNSAFE DRIVERS**



Qx: In the past 12 months, did you ever ride in a motor vehicle with a driver you thought might have consumed too much alcohol to drive safely? [Base: all respondents]



Qx: In the past 12 months, did you ever ride in a motor vehicle with a driver you thought might have consumed too much alcohol to drive safely? [Base: all respondents]



Qx: Please think back to the last time you rode with a driver you thought might have consumed too much alcohol to drive safely. Did you decide the driver was unsafe before or after you were riding in the vehicle? [Base: rode with driver who may have consumed too much alcohol to drive safely, past year]

\*\*Sample base for figures on this page:

	Non-Hispanic White	Non-Hispanic Black	Other (net)	Asian	American Indian/Eskimo	Hispanic
Total	7955	1026	1472	274	197	743
Drove with unsafe driver	997	152	245	25	45	138
16-20	1221	240	384	--	--	--
21-29	1658	267	--	--	--	--
30-45	2874	324	492	--	--	--
46-64	2178	190	216	--	--	--



## **Chapter 2: Perceptions of Drinking and Driving as a Problem**

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In addition to measuring drinking and driving behaviors, this study examines the driving age public's perceptions on a number of topics related to drinking and driving. Changes in these perceptions can eventually lead to personal changes in drinking and driving behaviors (both improvements and declines) and in actions towards others. This section provides feedback on perceptions of the following issues:

- How much drinking and driving by others is a threat to self and family's personal safety
- The importance of reducing drinking and driving and support for zero tolerance
- Drinker-drivers as alcoholics or problem drinkers
- Non-problem drinkers as a serious highway safety problem
- Any amount of alcohol impairs driving
- People should not be allowed to drive if they drink any alcohol
- Personal responsibility for preventing others from driving after drinking
- The number of drinks a person could drink before he/she should not drive

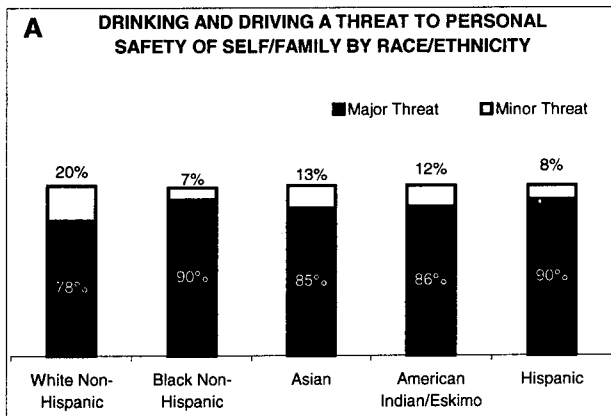
## **The Importance of Reducing Drinking and Driving and Support for Zero Tolerance**

The driving age public age 16 to 64 sees drinking and driving as a serious problem that needs to be dealt with. Eight of ten (80%) persons see drinking and driving of others as a major threat to the personal safety of themselves and their family, and 86% say that it is “very important” that something be done to reduce drinking and driving. [Figures 8-A and 8-B]

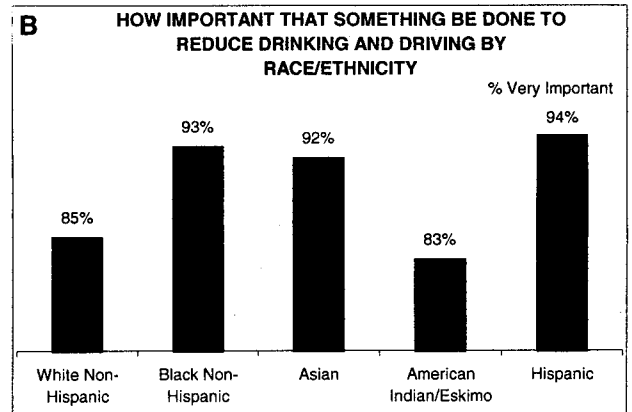
Non-Hispanic Whites are less likely to see drinking and driving as a major threat (78%) as compared to those of other racial groups (88%), and along with American Indians are less likely to think it is important to do something to reduce it (85% as compared to 91%).

The majority of the driving age public is supportive of “zero tolerance” for drinking and driving for all drivers. About 55% strongly agree that people should not be allowed to drive if they have consumed any alcohol at all, and an additional 21% somewhat agree with this statement. Again, non-Hispanic Whites are less likely than others to strongly agree with this “zero tolerance” perspective (51% as compared to 65% of others). [Figure 8-C]

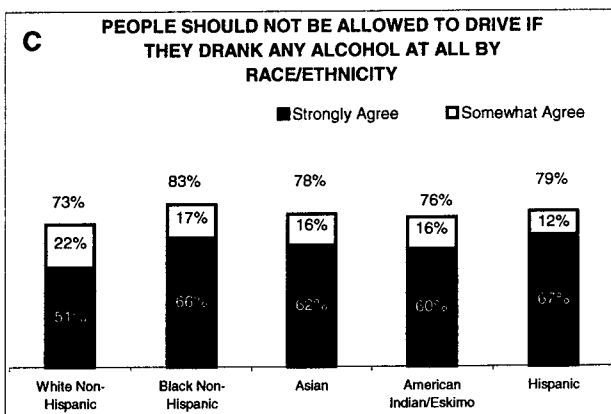
**FIGURE 8: THE IMPORTANCE OF REDUCING DRINKING AND DRIVING AND SUPPORT FOR ZERO TOLERANCE**



Qx: In your opinion, how much is drinking and driving by other people a threat to the personal safety of you and your family? [Base: As indicated in figure]



Qx: How important is it that something be done to reduce drinking and driving? [Base: all respondents n=4010]



Qx: For [each of] the following statement[s], please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree. People should not be allowed to drive if they have been drinking any alcohol at all. [Base: As indicated in figure]

\*\*Sample base for figures on this page:

	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic
Total	7955	1026	274	197	743

## **Beliefs About Drinking and Driving**

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Respondents were asked to rate their agreement on a series of five questions regarding drinking and driving. These items include:

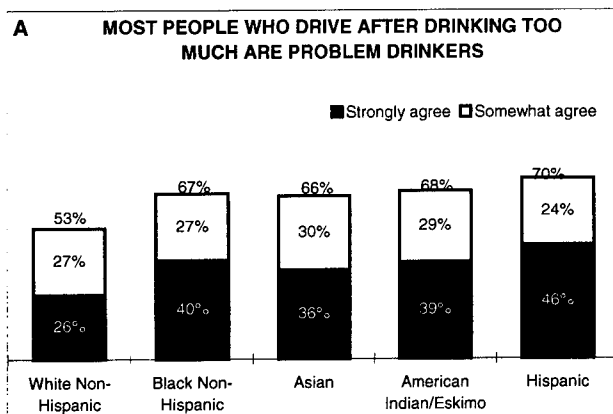
- Most people who drive after drinking too much alcohol are problem drinkers or alcoholics
- Drinking and driving by people who are not problem drinkers is a serious highway safety problem
- Scientific evidence has shown that any amount of alcohol impairs driving
- People should not be allowed to drive if they have been drinking any alcohol at all
- I should prevent someone I know from driving when I see they have had too much to drink

More than one-half (57%) of the driving age public age 16 to 64 agree that most people who drive after drinking too much alcohol are alcoholics or problem drinkers. Non-Hispanic Whites are much less likely than those of other racial groups to hold this perspective. Just 53% agree strongly or somewhat as compared to 67% agreement of other racial groups. [Figure 9-A]. In contrast, however, about 14% of drinking-drivers can be technically classified as “problem-drinkers”. [Figure 6-A]

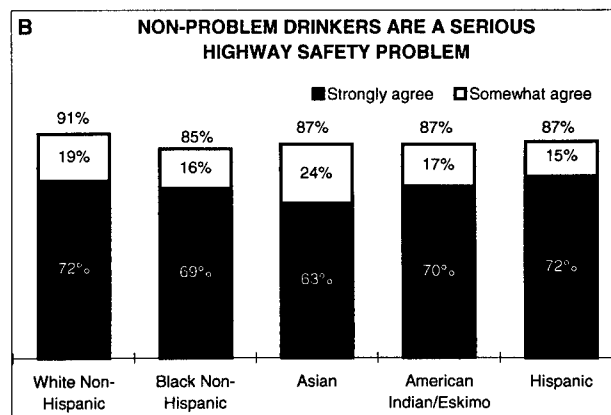
The overwhelming majority (72%) also see that drinking-driving occurrences by those who are not “problem drinkers” or alcoholics is a serious highway safety problem. Asians are less likely to agree with this (63%) than are other groups. [Figure 9-B]

Regarding personal responsibility for others, nearly all (94%) agree that they should prevent someone they know from driving when they feel that person has had too much to drink. Asians and American Indians are less likely to take the interventional attitude (87%). [Figure 9-C]

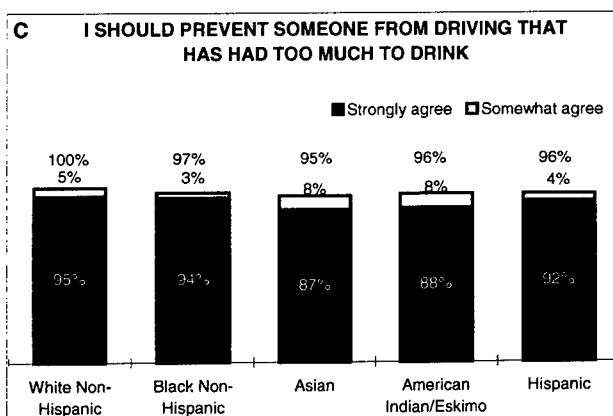
**FIGURE 9: BELIEFS ABOUT DRINKING AND DRIVING**



*Qx: Most people who drive after drinking too much are alcoholics or problem drinkers.*



*Qx: Drinking and driving by people who are NOT alcoholics or problem drinkers is a serious highway safety problem.*



*Qx: I feel I should prevent someone I know from driving when I see they have had too much to drink.*

\*\*Sample base for figures on this page:

	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic
Total	7955	1026	274	197	743

## **Number of Drinks Before One Should Not Drive**

---

Drivers who drink were asked to estimate the number of alcoholic beverages they could drink in two hours to reach the point where they should not drive. About two-thirds of drivers who consume alcohol feel that they should not drive if they have had two or fewer drinks within a two-hour period. More than one-third of those in all racial groups place their personal limit (after which they should not drive) at one or fewer drinks. A similar proportion (35%) say they should not drive after consuming three or more drinks in two hours. Non-Hispanic Whites are least likely to put their personal limit under two drinks (35% as compared to 40% of others). [Figure 11-A]. The average 170-pound male would be at about a .03 BAC after consuming 2 drinks within two hours.

### **Differences By Race/Ethnicity**

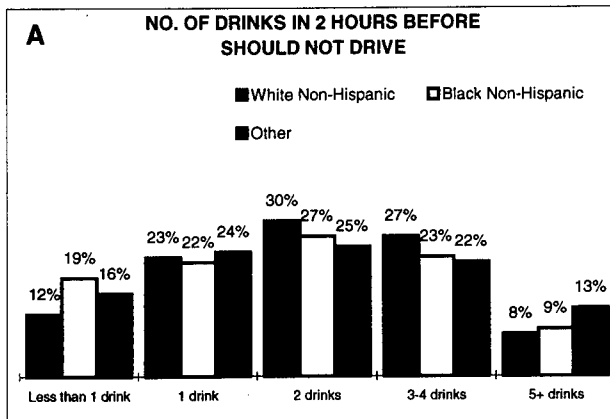
On average, persons of driving age feel they could consume 2.6 alcoholic drinks in two hours before they should not drive. Male drivers who drink alcohol perceive their personal limit to be much higher than do their female counterparts, with males saying they could consume three drinks in two hours before they should not drive, while females say they could drink an average of just two drinks before they hit their driving limit. American Indians/Eskimos perceive the highest personal limit, citing that they could drink about 3.7 drinks. Asians and Hispanics also perceive higher tolerances than do White or Black drivers who drink. [Figure 10-B]

### **BAC Equivalents to Personal Limits by Age and Gender**

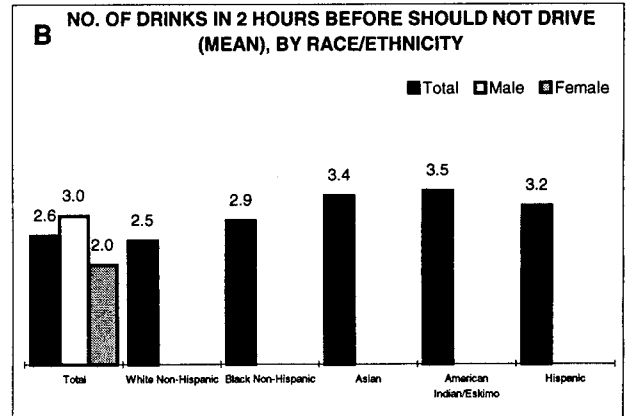
When these perceived self-limits are viewed in terms of the estimated resulting BAC level if the respondent drank the reported number of drinks, these drinker drivers on average would near a BAC level of .05. [Figure 10-C] Asian and American Indian/Eskimo persons perceive their personal limit of alcohol before they should not drive at a level that would put them at a BAC level of .07 or higher, on average. [Figure 10-C]



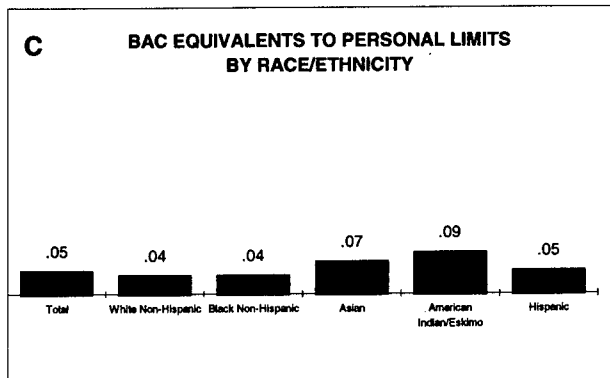
**FIGURE 10: NUMBER OF DRINKS BEFORE ONE SHOULD NOT DRIVE**



Qx: How many [drinks of alcoholic beverage drunk most often] could you drink in two hours before you should not drive? [Base: drivers who drink]



Qx: How many [drinks of alcoholic beverage drunk most often] could you drink in two hours before you should not drive? [Base: drivers who drink]



Qx: How many [drinks of alcoholic beverage drunk most often] could you drink in two hours before you should not drive? (BAC level was calculated using average reported personal limit and average body weight for each gender/race category) [Base: Drivers who drink]

\*\*Sample base for figures on this page:

	Total	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic
Total	4086	3338	269	75	63	158
Male	2135	1702	137	47	42	147
Female	1951	1636	132	28	21	91



## **Chapter 3: Prevention and Intervention to Reduce Drinking and Driving**

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This section considers actions people can take to reduce drinking and driving trips for themselves and others. Drinking-driving trips can be reduced through several methods, including prevention actions before an occasion that averts planned drivers from drinking alcoholic beverages at the event, and prevention actions to avert planned drinkers from driving. Such trips can also be reduced through the intervention actions by those who suspect that another person has already consumed too much alcohol to drive safely and halting the unsafe driving behavior.

Specifically, this section covers the following topics:

- Personal actions to prevent drinking and driving
- Actions to avoid driving after consuming too much alcohol to drive safely
- Planning/actions as host of social event to prevent guests from driving home impaired
- Use of designated drivers
- Intervention with friends who may not be safe to drive

## **Actions to Reduce Drinking and Driving**

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Different strategies are open to drivers who drink to avoid drinking and driving situations. They can avoid attending an event altogether, decide to go to the event but not drink, make alternate transportation arrangements ahead of time to avoid driving, or go to an event and drink but decide not to drive afterwards.

### **All Drivers Who Drink**

The most common proactive personal strategy to avoid drinking and driving is to attend a planned event where alcohol was present but not drink at the event. Two of three drivers who drink used this method at least once in the past year. [Figure 11-A]

Another common proactive strategy used by more than one-third of drivers who drink is to make alternate travel arrangements ahead of time to avoid drinking and driving after the event. [Figure 11-B]

The least used proactive prevention strategy is to avoid attending an event altogether because the person did not want to drive after drinking. One in four drivers who drink cites use of this strategy in the past year. [Figure 11-C]

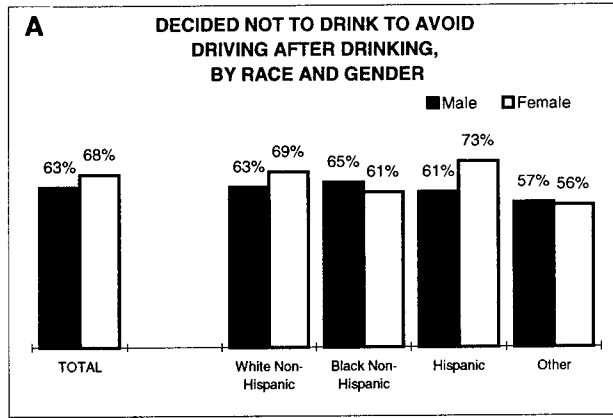
A common reactive prevention practice is to attend an event, consume alcohol and then decide not to drive afterwards. Four in ten drivers who drink take this strategy. [Figure 11-D]

### **Strategies Used by Gender and Race/Ethnicity**

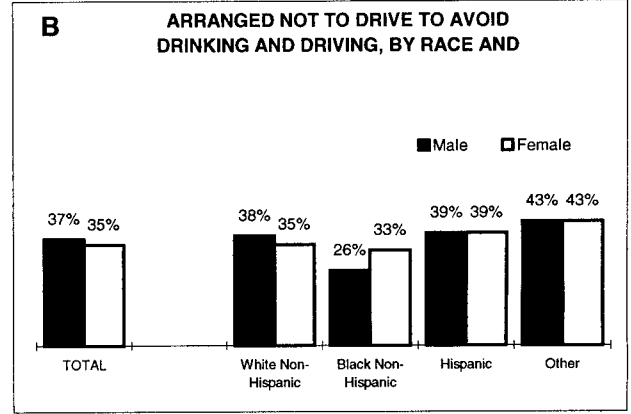
There are few substantial differences in use of strategies to avoid drinking and driving trips between males and females. Males are slightly more likely to report avoiding an event altogether (27% compared to 21% of women) and more likely to drive to an event, and to drink and then decide to not drive afterward (47% compared to 36%).

Non-Hispanic Whites are least likely to say they have avoided an event altogether [Figure 11-C], while non-Hispanic Blacks are least likely to arrange ahead of time for alternate transportation to an event [Figure 11-B]. Those of Asian, American Indian and other racial groups are more likely to say they have avoided an event or have arranged not to drive than is true of those of White, Black or Hispanic descent. [Figures 11-B -C]

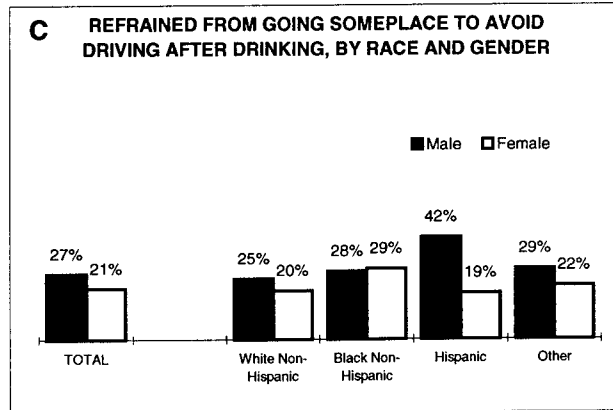
**FIGURE 11: ACTIONS TO AVOID DRINKING AND DRIVING**



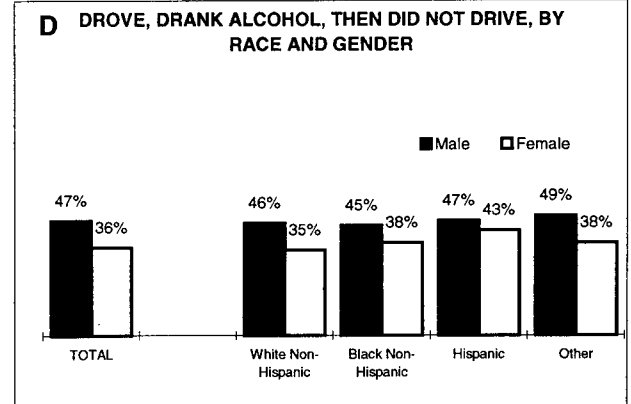
Qx: In the past year, did you ever drive someplace, drink alcohol, and then not drive afterward because you did not want to drink and drive? [Base: drivers who drink]



Qx: In the past year, did you make arrangements ahead of time not to drive to a social event because you wanted to avoid driving after drinking? [Base: drivers who drink]



Qx: In the past year, did you ever decide not to go someplace because you did not want to drive after drinking? [Base: drivers who drink]



Qx: In the past year, did you ever go someplace where alcohol was present, but decided not to drink any alcohol because you did not want to drive after drinking? [Base: drivers who drink]

\*\*Sample base for figures on this page:

	Total	Non-Hispanic White	Drivers who drink Non-Hispanic Black	Hispanic	Other (net)
Total	4086	3338	269	158	250
Male	2135	1702	137	147	154
Female	1951	1636	132	91	96

## **Avoided Driving After Drinking Too Much**

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### **Drinker-Drivers Vs. Other Drivers Who Drink**

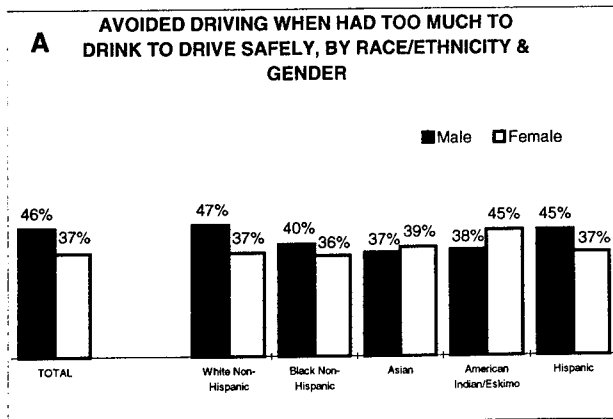
More than four in ten past-year drinker-drivers have avoided driving a motor vehicle at least once because they felt they might have drunk too much to drive safely. This includes 46% of males and 37% of females. Non-Hispanic White males and Hispanic males who drink are more likely than other males to say they have avoided driving. [Figure 12-A]

### **Actions to Avoid Driving After Drinking Too Much**

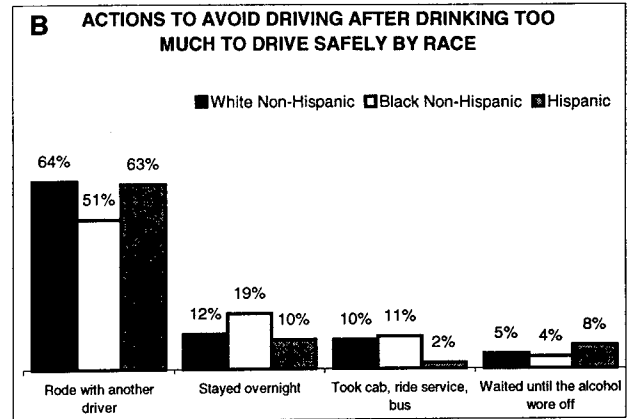
Six in ten of those who avoided driving after drinking too much, did so by riding with another driver. About 12% stayed the night to avoid driving after drinking, while one in ten took an alternate mode of transportation home. [Figure 12-B]. Non-Hispanic Blacks are much less likely to ride home with another driver after having consumed too much to drive safely themselves. These drinker-drivers are more likely to stay overnight than is true of their counterparts. [Figure 12-B]

Young drinker-drivers are most likely to stay overnight to avoid driving after they have consumed too much alcohol. The propensity to stay the night declines with age, but continues to be much higher among non-Hispanics Blacks at all age categories. [Figure 12-C]

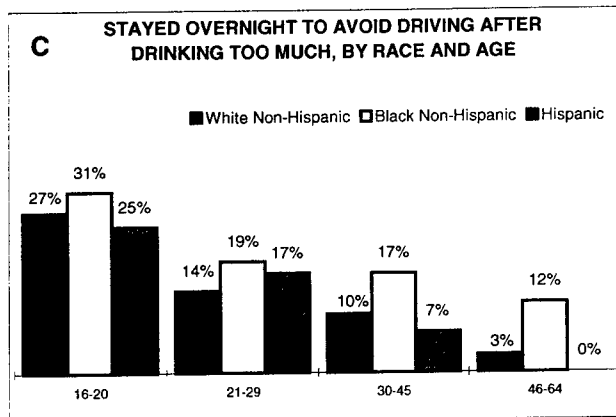
**FIGURE 12: AVOIDED DRIVING AFTER DRINKING TOO MUCH**



Qx: In the past 12 months, have you ever deliberately avoided driving a motor vehicle because you felt you probably had too much to drink to drive safely? [Base: drivers who drink]



Qx: On the most recent time that you deliberately avoided driving after drinking, how did you do it? [Base: avoided driving after drinking, past year]



Qx: On the most recent time that you deliberately avoided driving after drinking, how did you do it? [Base: avoided driving after drinking, past year]

\*\*Sample base for figures on this page:

	Non-Hispanic White	Non-Hispanic Black	Other Race (Net)	Asian	American Indian/Eskimo	Hispanic
Total Male	2799	233	469	86	73	219
Total Female	2626	219	310	41	38	167
Avoided driving after drinking						
16-20	254	23	--	--	--	27
21-29	399	41	--	--	--	34
30-45	597	32	--	--	--	37
46-64	248	12	--	--	--	7

## **Concerns and Actions by Hosts to Prevent Guest from Driving Impaired**

---

### **Hosting a Social Event and Served Alcohol**

About four in ten of those ages 16 to 64 have hosted a social event in the past year at which they served alcohol. Non-Hispanic Whites are much more likely to have hosted such a social event than those of other racial groups (45% compared to about 27% of other groups). [Figure 13-A]

### **Actions Taken by Hosts**

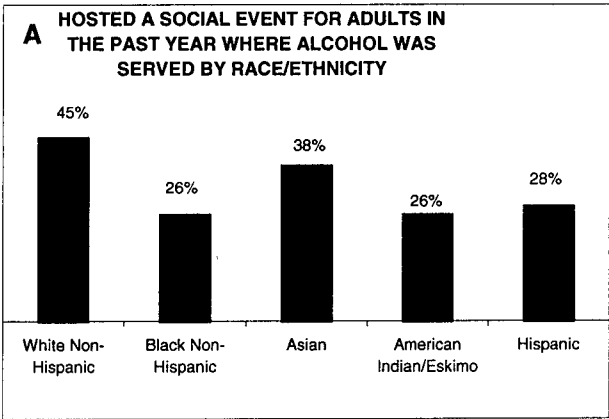
About three-quarters of those who served alcohol at a social event said they took some action to prevent guests from driving home impaired. Preventive actions were more likely to be taken by females and by younger hosts. The pattern of taking actions declining with age follows the pattern of declining concern about guests drinking and driving by age.

Having guests who may have been too impaired to drive safely spend the night is the most cited preventive action taken by hosts, with one-third of all hosts reporting this action. Two in ten hosts had someone else take the potentially impaired guest home, while about one in five hosts served less alcohol at their event or limited serving hours. More than one in ten reported they served food to help avert potential drinking-driving problems with guests. [Figure 13-B]

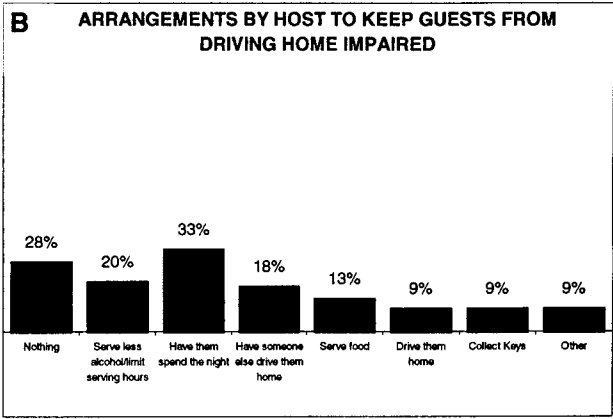
Spending the night at the host's home is much more common among non-Hispanic Blacks than other racial groups, with half of these hosts saying they have had impaired guests spend the night rather than drive home. These hosts are less likely than other hosts to limit serving hours or serve less alcohol to their guests than non-Hispanic White hosts or hosts of other racial backgrounds. [Figure 13-C]



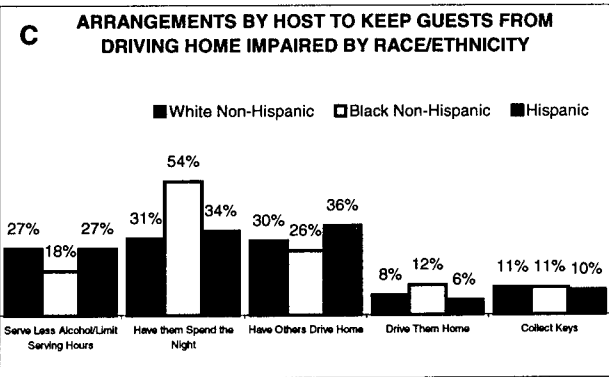
**FIGURE 13: CONCERNS AND ACTIONS BY HOSTS TO PREVENT GUESTS FROM DRIVING IMPAIRED**



Qx: Have you hosted a social event in the past year for adults in which you made alcoholic beverages available ? [Base: hosted a social event and served alcohol]



Qx: What, if anything, did you do to keep guests from driving home impaired? [Base: hosted a social event and served alcohol]



Qx: What, if anything, did you do to keep guests from driving home impaired? [Base: hosted a social event and served alcohol]

\*\*Sample base for figures on this page:

	Non-Hispanic White	Non-Hispanic Black	Other race (net)	Asian	American Indian/Eskimo	Hispanic
Total	5166	675	975	182	122	504
Hosted social event/served alcohol	1142	95	--	--	--	88

## **Designated Drivers**

---

### **Riding With a Designated Driver**

One-third of all persons age 16 to 64 has ridden with a designated driver in the previous year. Riding with a designated driver is slightly more common among males than females, and is least prevalent among those of Asian descent. [Figure 14-A]. The average male age 16 to 64 has ridden with a designated driver 5.9 times in the past year, while females report an average of about 4.4 past-year trips. Asian and Hispanic males are about three times as likely as others are to ride with a designated driver. [Figure 14-B]

### **Being the Designated Driver**

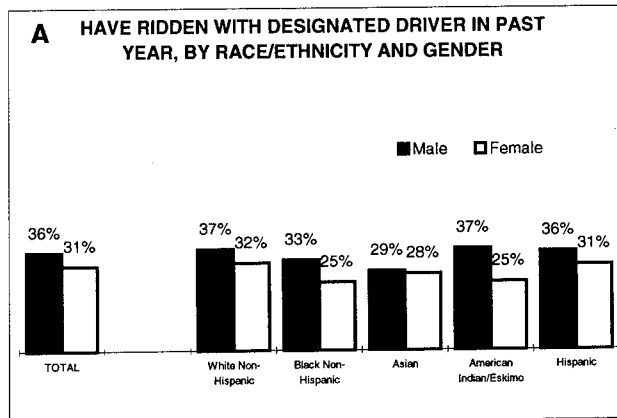
Four of ten drivers have acted as the designated driver for others in the past year. Those of Asian descent are least likely to have been a designated driver. [Figure 14-C]

### **Number of Drinks for Designated Drivers**

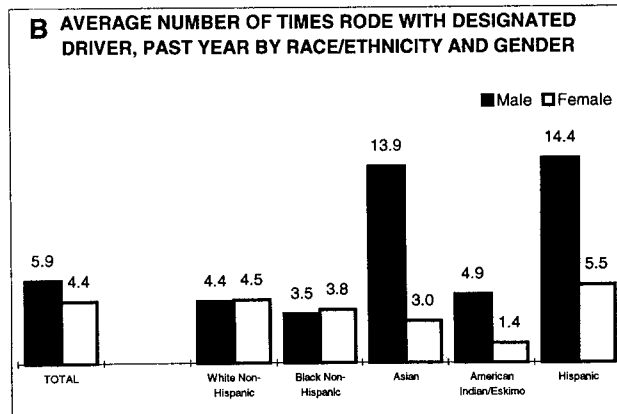
Past-year passengers of designated drivers report that they averaged a little more than one-half of a drink before driving, while those who were designated drivers themselves report having consumed about one-third of an alcoholic drink on average before driving. Non-Hispanic Whites report about half the alcohol consumption by their designated drivers as is true of other racial groups. [Figure 14-D]

The actual experience with designated drivers closely matches the public perception of the number of allowable drinks for a designated driver. Two-thirds feel that a designated driver should be allowed less than one drink. An additional 16% feel that one drink is acceptable for a designated driver. Asian drivers are slightly more likely to report that one or more drinks is acceptable for a designated driver to have than is true of other drivers. [Figure 14-E]

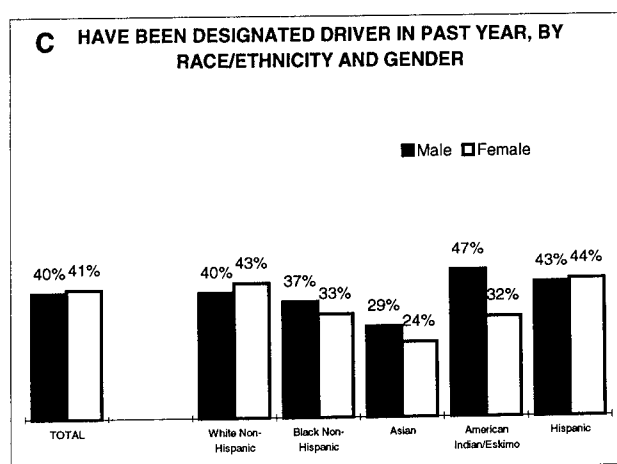
**FIGURE 14: DESIGNATED DRIVERS**



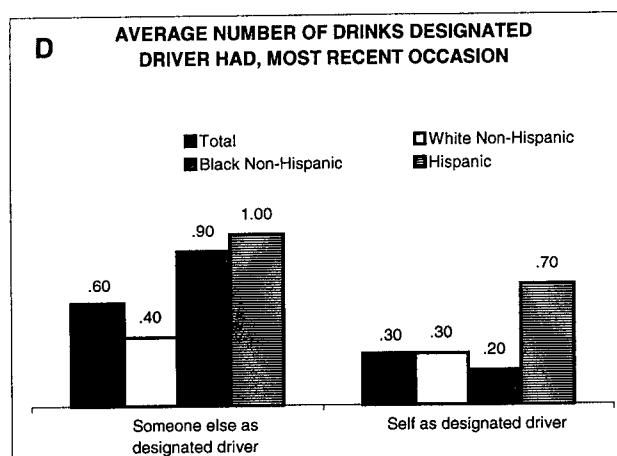
Qx: In the past year, how many times have you ridden with someone who agreed to be the designated driver? [Base: all respondents]



Qx: In the past year, how many times have you ridden with someone else who had agreed to be the designated driver? [Base: all respondents]

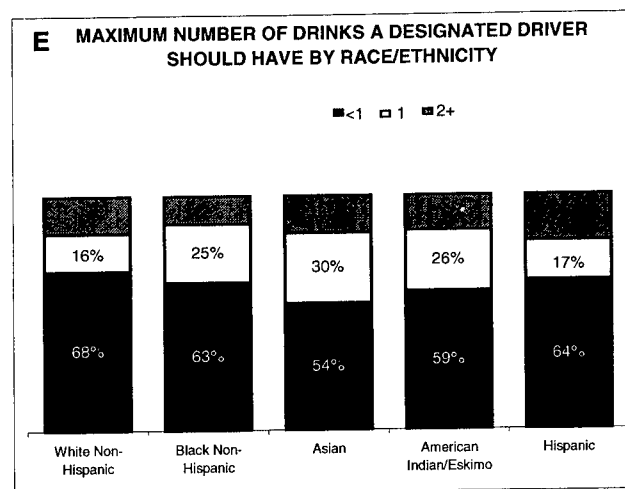


Qx: In the past 12 months, have you ever been the designated driver when driving with others? [Base: drivers]



Qx: On the most recent occasion that you rode somewhere with a designated driver, how many drinks did the designated driver have before driving, if any? [Base: rode with designated driver in past year]

Qx: On the most recent occasion that you were the designated driver, how many drinks did the designated driver have before driving, if any? [Base: drivers]



Qx: What is the maximum number of drinks a person should have if he or she is the designated driver? [Base: drivers]

\*\*Sample base for figures on this page:

	Non-Hispanic White	Non-Hispanic Black	Other race (net)	Asian	American Indian/Eskimo	Hispanic
Male	2703	329	--	120	97	254
Female	2639	399	--	87	65	244
Designated driver	2231	255	398	--	--	--
Rode with designated driver	1818	207	161	--	--	182

## **Perceptions of Personal Responsibility to Intervene**

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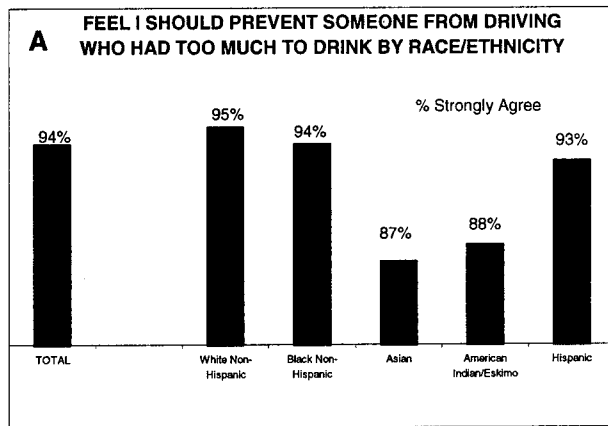
Overall about 94% of those age 16 to 64 strongly agree that they should prevent someone they know from driving when they see they have had too much to drink. This indicates a high prevalence of personal responsibility to intervene to reduce impaired-driving. Persons of Asian or American Indian/Eskimo descent are much less likely to feel strongly that they should intervene with someone they feel has drank too much to drive safely. Fewer than nine of ten (87%) of those age 16 to 64 feel this way as compared to 95% of other racial/ethnic groups. [Figure 15-A]

About three in ten persons age 16 to 64 have been in a situation of being with a friend who had too much to drink to drive safely. These people report an average of just over two such experiences, with men reporting a greater number of experiences than women do. Males of American Indian/Eskimo descent (4.8 times) report the greatest number of experiences with this situation. [Figure 15-B]

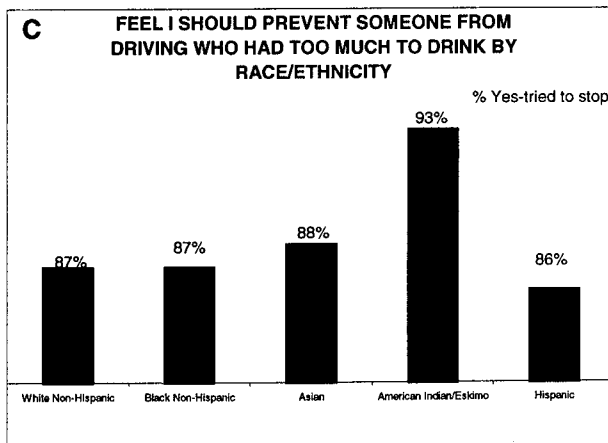
Nine of ten of those who strongly agree that they should try to prevent a friend from driving impaired actually took such prevention when faced with a potentially impaired friend. Those of American Indian/Eskimo descent are more likely to have attempted intervention (93%). [Figure 15-C]

Despite a high propensity to attempt intervention, those of American Indian/Eskimo background report the least success in preventing an impaired acquaintance from driving (28% report the person drove anyway compared to 17% of other race/ethnic groups). [Figure 15-D]

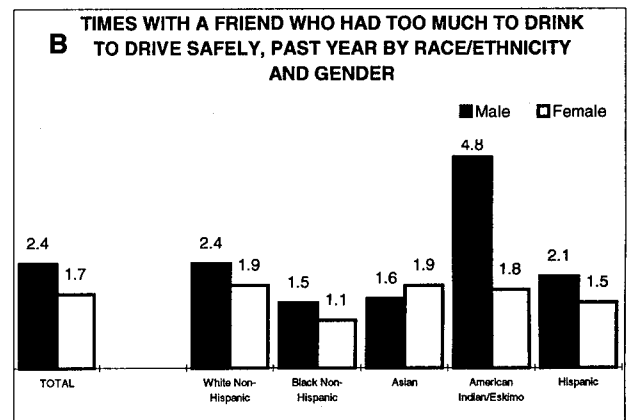
**FIGURE 15: PERSONAL RESPONSIBILITY TO INTERVENE**



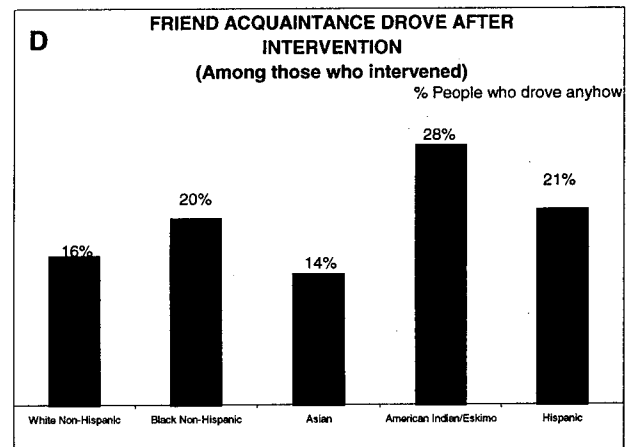
Qx: For...the following statement, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree. I feel I should prevent someone I know from driving when I see they have had too much to drink. [Base: all respondents]



Qx: For...the following statement, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree. I feel I should prevent someone I know from driving when I see they have had too much to drink. Qx: Think of the most recent time you were in this situation. Did you do something to stop them from driving? [Base: specified in the chart]



Qx: In the last year, how many times were you in a situation where you were with a friend who had too much to drink to drive safely? [Base: all respondents\*\*]



Qx: Did they drive anyhow? [Base: tried to intervene]

\*\*Sample base for figures on this page:

	Non-Hispanic White	Non-Hispanic Black	Asian	American Indian/Eskimo	Hispanic
Total	5165	675	180	122	689
Male	3477	406	145	103	341
Female	3696	536	108	68	348
Strongly agree should try to prevent	1661	184	41	47	160
Tried to intervene	1533	169	37	47	170



## **Chapter 4: Enforcement of Drinking and Driving Laws**

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For law enforcement to be effective as a preventive measure, those who would potentially exhibit the undesired behavior must believe the threat of detection and enforcement. This section examines the driving age public's experiences with, and perceptions of, enforcement and punishment for drinking and driving violations.

Specifically it covers the following topics:

- Past 12-month drinking and driving violations and arrests
- Perceptions of the being stopped by police if drinking and driving
- Perceptions of punishments for drinking-driving violations
- Attitudes about current drinking-driving violation penalties
- Perceptions and use of sobriety checkpoints

## **Drinking and Driving Violations and Arrests**

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### **Stopped/Arrested for Drinking and Driving Violation**

Approximately 3% of the persons age 16 to 64 report being stopped by the police for suspicion of drinking and driving. [Figure 16-A]. American Indians/Eskimos are more than twice as likely as others to be stopped for suspected drinking and driving violations. Non-Hispanic White and Hispanic males are more than three times as likely as their female counterparts to say they have been stopped, while this pattern does not hold among other racial groups. [Figure 16-C]

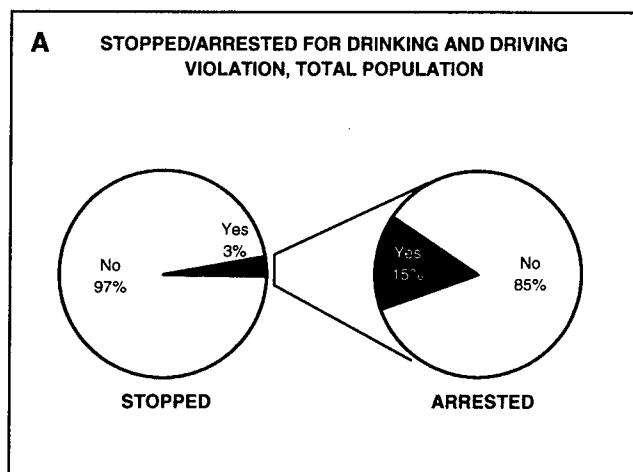
Of the 3% of those stopped by the law for suspicion of drinking and driving, about one in seven (15%) were arrested for a drinking-driving violation. [Figure 16-A]. Overall, this translates to less than 1% of all persons age 16 to 64 being arrested for drinking-driving violations. Hispanics report the greatest experience of arrests for drinking-driving violations with about 2% reporting an arrest. [Figure 16-D]

### **Drinker-Drivers and Violations**

More than one in twenty (6%) drinker-drivers have been stopped in the past year for suspicion of a drinking and driving violation. This is twice that of the other persons of the driving age public. Among those stopped by police, past-year drinker-drivers are three times as likely as non-drinker-drivers to have been arrested for these violations (23% of drinker-drivers vs. 7% of other persons age 16 to 64 who did not consume alcohol within two hours of driving). [Figure 16-B]

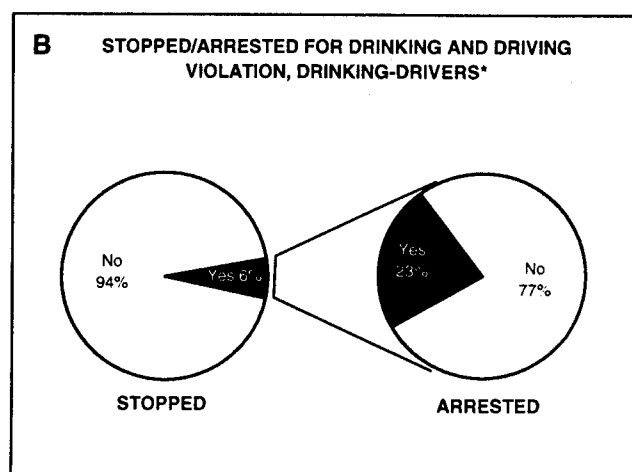


**FIGURE 16: DRINKING AND DRIVING VIOLATIONS AND ARRESTS**



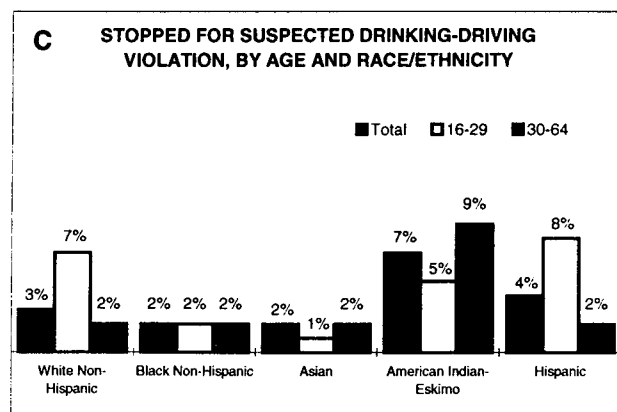
Qx: In the past 12 months, have you been stopped by a police officer who suspected you of drinking and driving? (Base: all respondents n=6829)

Qx: Were you arrested for a drinking and driving violation in the past 12 months? (Base: stopped for suspicion of a drinking-driving violation n=234)

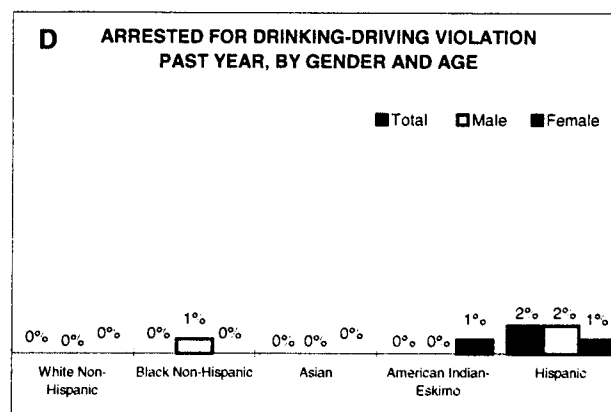


Qx: In the past 12 months, have you been stopped by a police officer who suspected you of drinking and driving? (Base: drove within two hours after drinking in past year n=1646)

Qx: Were you arrested for a drinking and driving violation in the past 12 months? (Base: drinking-drivers stopped for suspicion of a drinking-driving violation n=100)



Qx: In the past 12 months, have you been stopped by a police officer who suspected you of drinking and driving? (Base: all respondents)



Qx: Were you arrested for a drinking and driving violation in the past 12 months? (Base: all respondents)

\*A drinking-driving trip is defined as an occasion when a driver drove within two hours after drinking any alcohol

\*\*Sample base for figures on this page:

	Total	White non-Hispanic	Black Non-Hispanic	Asian	American Indian/Eskimo	Hispanic
Total	6304	5167	675	182	122	504
Male	2103	1573	299	102	60	234
Female	4201	3594	376	80	62	270

## **Perceptions about Likely Drinking-Driving Outcomes**

---

### **Likelihood of Being Stopped by Police Vs. Crash if Drinking and Driving**

The driving age public was asked which outcome they thought to be more likely if someone was driving after drinking too much alcohol: being stopped by police or being involved in a crash. About two-thirds believe that a person who drinks and drives is more likely to be involved in a crash, while 28% believe the person would be more likely to get stopped by the police. Asians are more likely than others to feel that a crash is likely, while those of American Indian/Eskimo descent are least likely to feel a crash is more likely. [Figure 17-A]

### **Being Stopped by Police**

Overall, more than six in ten believe that a person is likely to be stopped by the police for driving after having too much to drink. Non-Hispanic Whites are least likely to feel that being stopped by police is likely (62% say it is likely), while those of Hispanic descent are most likely to feel this outcome would be likely (73%). [Figure 17-B]

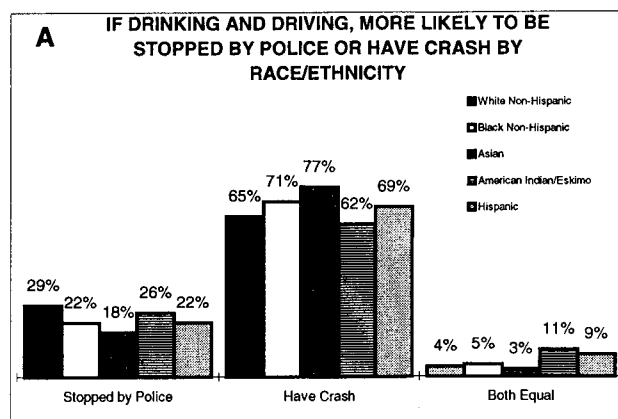
### **Likelihood of Receiving Punishment if Caught Drinking and Driving**

About half of those ages 16 to 64 feel that punishment is almost certain if one is charged with a drinking and driving violation. [Figure 17-C]. An additional 27% feel that such an outcome would be very likely. American Indians/Eskimos and Hispanics are less likely than those of other races to feel that punishment is a certainty.

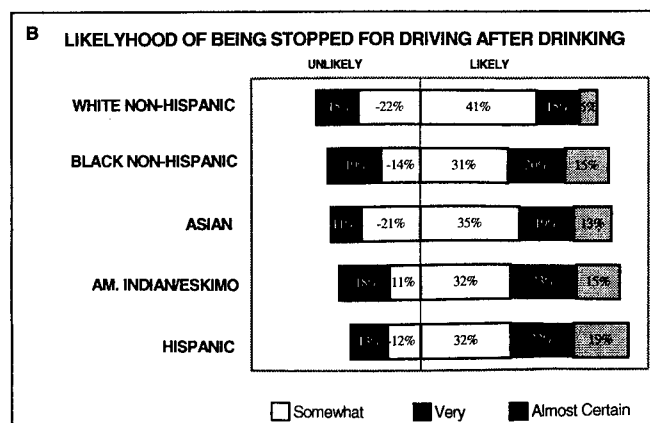
### **Perceived Severity of Punishment for Drinking and Driving**

Three-quarters of those ages 16 to 64 believe that the punishment for a drinking and driving violation would be somewhat or very severe. About 28% feel punishment would be very severe. Non-Hispanic Whites are least likely to perceive punishment as very severe (25%). [Figure 17-D]

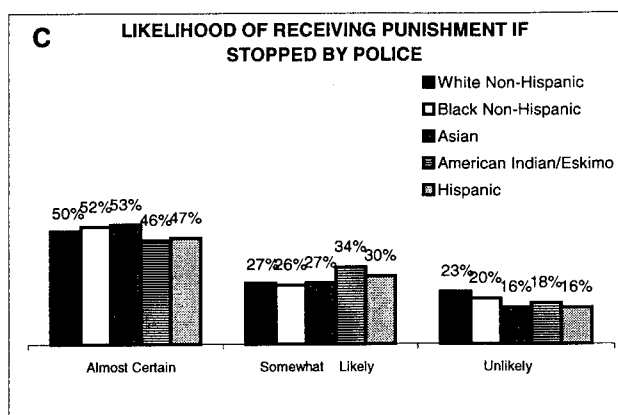
**FIGURE 17: PERCEPTIONS ABOUT LIKELY DRINKING-DRIVING OUTCOMES**



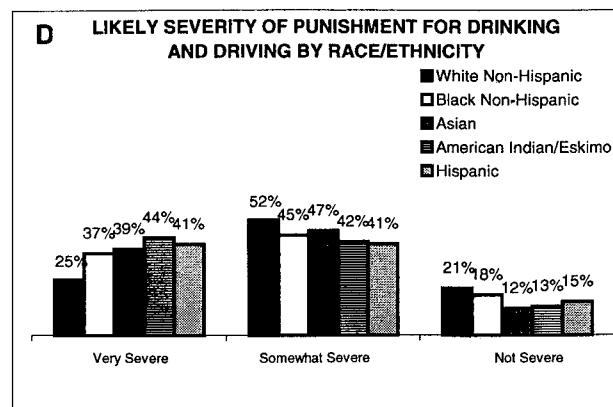
**Qx:** In your community, if a person drinks too much before driving (and then drives), which do you think is more likely to happen to them -- being stopped by the police or being involved in a crash? [Base: all respondents]



**Qx:** How likely are you to be stopped by police for driving after you have had too much to drink? [Base: all respondents]



**Qx:** If a police officer stops you and charges you with breaking the drinking and driving laws, how likely are you to receive some sort of punishment?



**Qx:** If you were actually punished for drinking and driving, do you think the punishment would most likely be very severe, somewhat severe, or not severe? [Base: all respondents]

\*A drinking-driving trip is defined as an occasion when a driver drove within two hours after drinking any alcohol

\*\*Sample base for figures on this page:

	Total	White non-Hispanic	Black Non-Hispanic	Asian	American Indian/Eskimo	Hispanic
Total	10396	7917	1025	274	197	743

## **Attitudes about Drinking-Driving Penalties**

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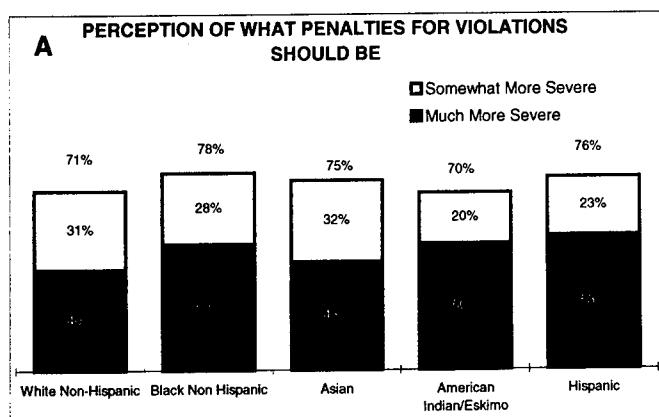
### **Perceptions about Severity of Drinking-Driving Laws**

The driving age public supports increased penalties for drinking and driving. Four in ten feel penalties for violators should be much more severe, while an additional third think they could be somewhat more severe. Non-Hispanic Whites are least likely to feel that such penalties should be much more severe (32% as compared to 39% of other races). [ Figure 18-A]

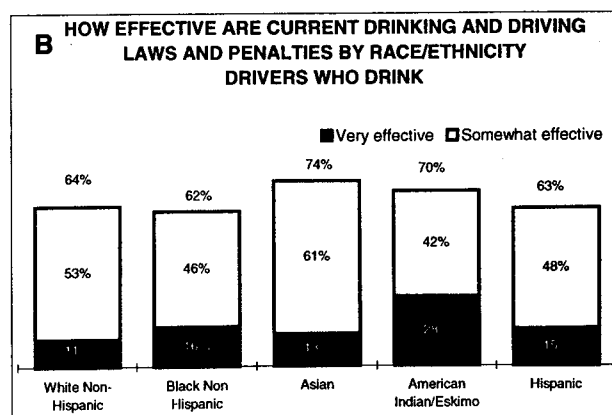
### **Perceived Effectiveness of Current Drinking-Driving Penalties**

While 65% of those ages 16 to 64 feel that current laws and penalties to reduce drinking and driving are at least somewhat effective, 28% feel laws and penalties are not too effective, and 6% see them as not at all effective in curbing drinking and driving. American Indian/Eskimos are more likely to perceive the laws to be very effective than do others (38% compared to 12% of others), while Asians are most likely to see the laws as at least somewhat effective (74% as compared to 64% overall). [Figure 18-B]

**FIGURE 18: ATTITUDES ABOUT DRINKING-DRIVING PENALTIES**



*Qx: In your opinion, should the penalties that are given out to drivers who violate the drinking and driving laws be. . . ? [Base: all respondents]*



*Qx: In your opinion, how effective are current laws and penalties at reducing drinking and driving? [Base: drivers who drink]*

\*\*Sample base for figures on this page:

	Total	White non-Hispanic	Black Non-Hispanic	Asian	American Indian/Eskimo	Hispanic
Total	10396	7917	1025	274	197	743
Drivers who drink	6566	5530	427	116	110	383

## **Perceptions and Use of Sobriety Checkpoints**

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Sobriety checkpoints are sometimes used by police to check drivers for alcohol impairment. Checkpoints are used as both a deterrent to potential drinker-drivers and as a means of intervention to get impaired drivers off the road before a crash occurs.

### **Seen a Sobriety Checkpoint, Past Year**

Three in ten persons age 16 to 64 have seen a sobriety checkpoint in the previous year. Non-Hispanic Whites are least likely to have seen such checkpoints, with White females the least likely to have seen any checkpoints. In contrast, Black males are the most likely to report having seen a sobriety checkpoint. [Figure 19-A]

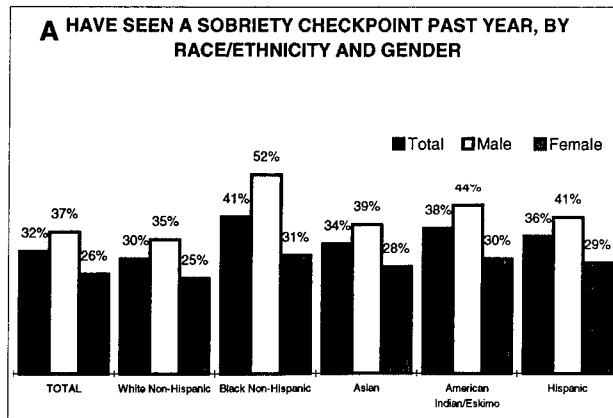
The likelihood of seeing a sobriety checkpoint decreases with age, with those age 30 or older much less likely than younger counterparts to have seen such. The trend holds among all race/ethnic groups. [Figure 19-B]

### **Recommended Frequency of Sobriety Checkpoint Use**

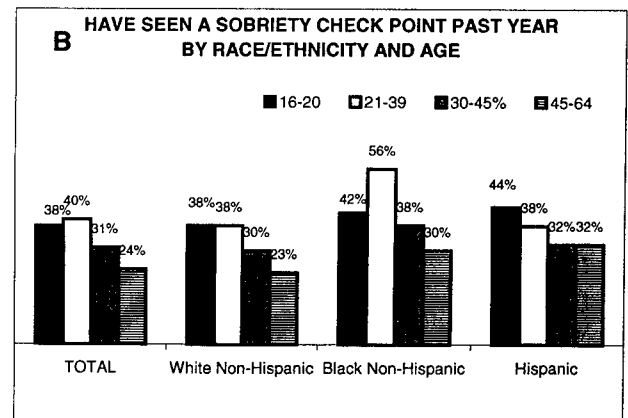
More frequent use of sobriety checkpoints is endorsed by two-thirds (68%) of the driving age public. Fewer than 10% feel that less frequent use is warranted. Non-Hispanic Blacks and Hispanics are most likely to believe that checkpoints should be used more often (76% and 73% respectively). Females of all racial groups are more likely than their male counterparts to feel that increased use of sobriety checkpoints is warranted. [Figure 19-C]

Persons age 16 to 20 are generally least likely to feel that sobriety checkpoints should be used more frequently. [Figure 19-D]

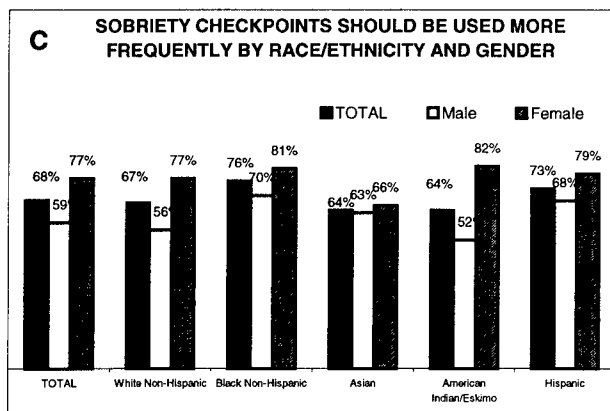
**FIGURE 19: PERCEPTIONS AND USE OF SOBRIETY CHECKPOINTS**



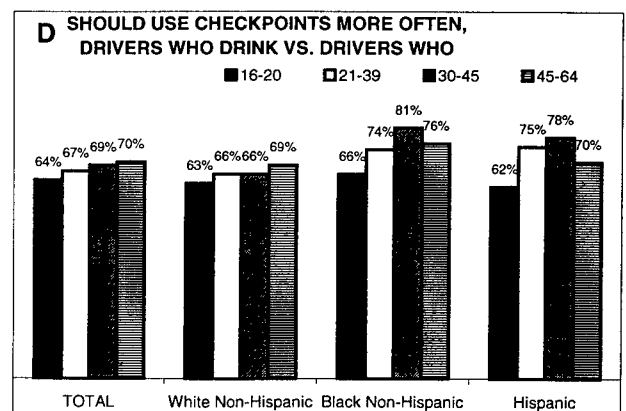
Qx: In the past 12 months, have you seen a sobriety checkpoint - where drivers are stopped briefly by police to check for alcohol-impaired driving? [Base: all respondents]



Qx: In the past 12 months, have you seen a sobriety checkpoint - where drives are stopped briefly by police to check for alcohol-impaired driving How many times have you been through a checkpoint in the last 12 months? [Base: all respondents]



Qx: Do you think sobriety checkpoints should be used more frequently, about the same as they are now, or less frequently? [Base: all respondents 1995,1997\*\*]



Qx: Do you think sobriety checkpoints should be used more frequently, about the same as they are now, or less frequently? [Base: all respondents 1995,1997\*\*]

\*\*Sample base for figures on this page:

	White non-Hispanic	Black Non-Hispanic	Other race (net)	Asian	American Indian/Eskimo	Hispanic
Male	2437	280	--	105	72	256
Female	2664	393	--	77	49	248
16-20	805	158	265	--	--	131
21-29	767	141	209	--	--	103
30-45	1985	229	351	--	--	194
46-64	1609	147	163	--	--	76





## **Chapter 5: Knowledge and Awareness of Blood Alcohol Concentration (BAC) Levels and Legal Limits**

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The amount of alcohol in a person's body can be measured in terms of the "Blood Alcohol Concentration" or BAC level. At the time the survey was administered, most states set the BAC limit at .10, while the limit in 15 states was .08 in 1997.

This section examines the driving age public's awareness and perceptions on the following BAC level topics:

- Awareness and knowledge of BAC levels and the legal limit for their states
- Knowledge of amount of alcohol to reach the BAC legal limit
- Acceptance of .08 BAC legal limits

## **Awareness and Knowledge about BAC Levels and Legal Limits**

---

### **Have Heard of BAC Levels**

Overall, more than four out of five (84%) persons age 16 to 64 have heard of blood alcohol concentration (BAC) levels. [Figure 20-A]. Non-Hispanic White persons of drinking age are significantly more likely to be aware of BAC levels than other racial groups, with 89% awareness. Fewer than three-fourths of those in other racial groups have heard of BAC levels [Figure 20-A]

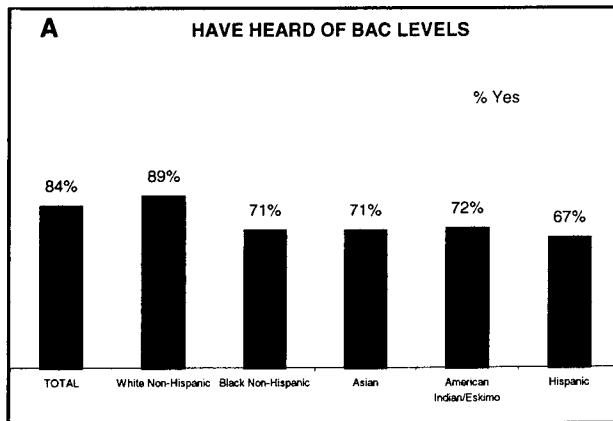
### **Knowledge of State's BAC Legal Limit**

The reported higher awareness of BAC levels by non-Hispanic White persons age 16 to 64 is substantiated in proven knowledge. More than half (53%) of those non-Hispanic White persons who are aware of BAC levels think they know the legal limit for their state, with almost six in ten (57%) of those being correct in their knowledge. [Figure 20-B]

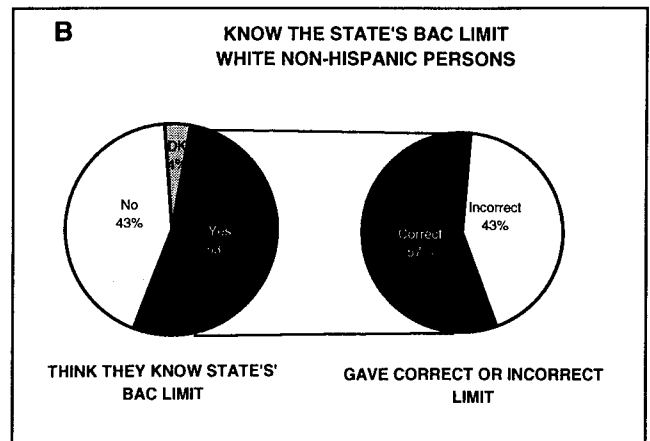
Non-Hispanic Blacks are much less likely to say they know their state's BAC limits (only 38% do) and are the least likely among those who purport knowledge to give a correct answer for their state, with just 40% having correct knowledge. [Figure 20-C]

About four in ten (44%) Hispanics say they know the legal BAC level for their state, while half (50%) are correct in their knowledge. [Figure 20-D]

**FIGURE 20: AWARENESS AND KNOWLEDGE ABOUT BAC LEVELS AND LEGAL LIMITS**



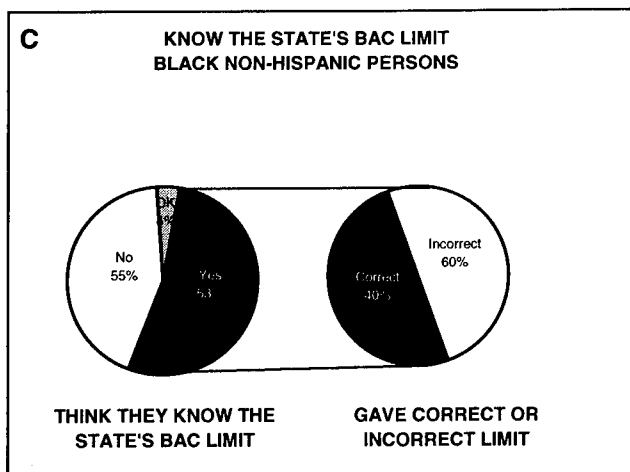
Qx: The amount of alcohol in a person's body can be measured in terms of the "Blood Alcohol Concentration," which is often called the BAC level. Have you heard of blood alcohol concentration of BAC levels? [Base: all respondents]



Qx: Do you know the specific BAC limit for your state?

Qx: What do you think the limit is?

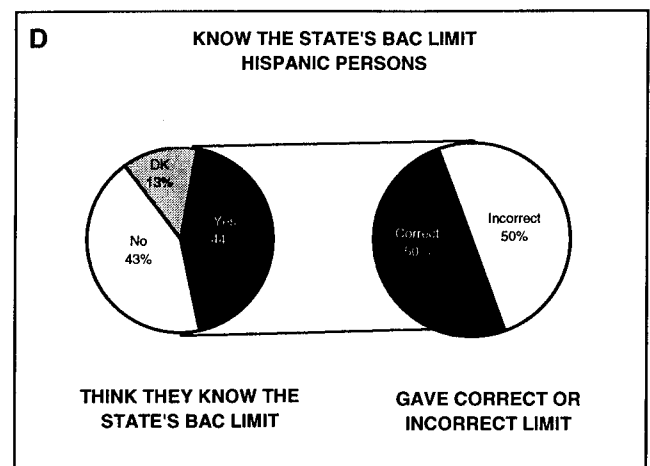
[Base: 1997 data only. Respondents who thought they knew state's BAC limit n=2766; answers were compared with actual BAC limits for each respondent's state of residence n=1427]



Qx: Do you know the specific BAC limit for your state?

Qx: What do you think the limit is?

[Base: 1997 data only - respondents who thought they knew state's BAC limit n=235; answers were compared with actual BAC limits for each respondent's state of residence n=91]



Qx: Do you know the specific BAC limit for your state?

Qx: What do you think the limit is?

[Base: 1997 data only - respondents who thought they knew state's BAC limit; answers were compared with actual BAC limits for each respondent's state of residence]

## **Knowledge of Amount of Alcohol to Reach BAC Limit**

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### **Number of Beers in Two Hours to Reach Legal Limit**

Those who thought they knew their state's BAC limit were asked how many beers in a two-hour period it would take someone their size to just reach their state's legal limit.

Nearly two-thirds (63%) believe that it would take three or fewer beers within two hours to reach the state's limit. An additional 17% feel that the limit would be reached at four beers. Just one in five (19%) feel that it would take 5 or more beers to reach the legal limit. The general public greatly under estimates the number of drinks to reach the legal BAC limit. Studies have shown that it would take an average 170-pound male five drinks within a two-hour period to reach a level of .08, while a 137-pound woman would reach this level with three drinks in two hours. Non-Hispanic Black and Hispanic persons who say they know about BAC limits, report a higher number of beers on average to reach the legal limit. [Figure 21-A]

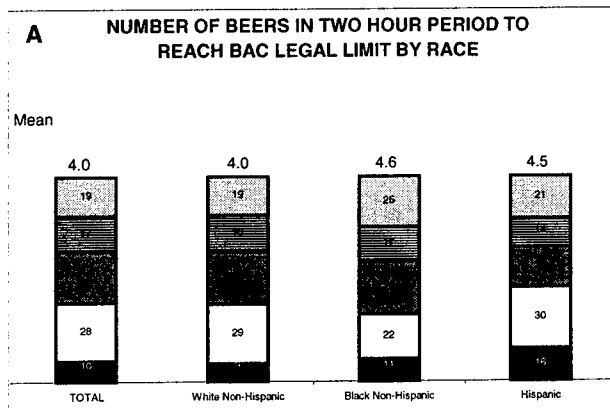
### **Number of Drivers Who Would be Dangerous With BAC at Legal Limit**

Six in ten (61%) of those who have heard of BAC levels think that all or most drivers would be dangerous with a BAC at the legal limit. Those of American Indian/Eskimo descent are much less likely to feel that a majority of drivers would be dangerous. Asians are slightly less likely than Non-Hispanic Whites, Non-Hispanic Blacks or Hispanics to feel most or all drivers would be dangerous. [Figure 21-B]

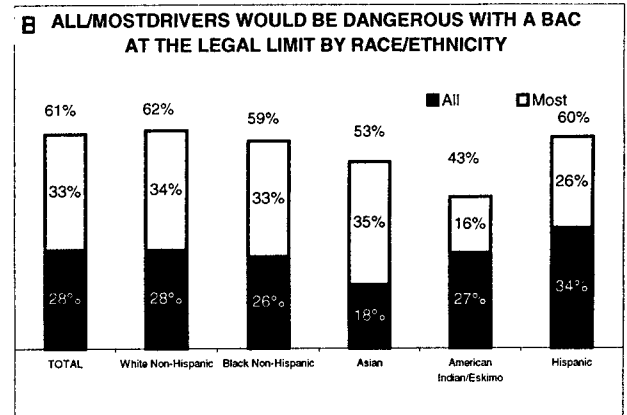
### **Percent of Drivers Who Would be Dangerous After 5 Beers in 2 Hours**

On average, the driving age public age 16 to 64 believes that about 73% of all drivers who had consumed five beers in two hours would be dangerous on the road. One-third (33%) feel that all (100%) drivers would be dangerous after this many drinks. Non-Hispanic Blacks and Asian persons are the least likely to feel that all drivers would be dangerous. [Figure 21-C]

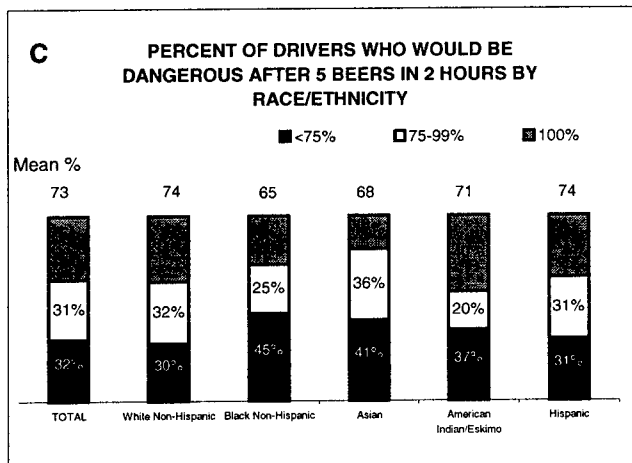
**FIGURE 21: KNOWLEDGE OF AMOUNT OF ALCOHOL TO REACH BAC LIMIT**



Qx: How many beers would a person about your size have to drink in a two hour period to just reach the legal limit? [Base: 1995 & 1997 data: believe they know the state's BAC limit]



Qx: In your opinion, how many drivers would actually be dangerous drivers with a BAC at the legal limit? [Base: 1995 & 1997 data]



Qx: In some states, the average person will reach the legal limit after drinking five beers in two hours. In your opinion, what percent of drivers would be dangerous after having five beers in two hours? [Base: 1995 & 1997 data: all respondents]

\*\*Sample base for figures on this page:

	White non-Hispanic	Black Non-Hispanic	Other race (net)	Asian	American Indian/Eskimo	Hispanic
Total	4596	603	--	154	107	444
Say know state BAC level	2389	198	199	--	--	146
Have heard of BAC levels	4553	482	--	133	88	334

## **Acceptance of .08 BAC Limit**

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New questions were added in the 1997 study to get a better understanding of the driving age public's perceptions and acceptance of .08 BAC limits. Persons living in .08 BAC limit states who had heard of BAC levels were asked if the BAC limit in their state should stay at its current level, or be raised (more lenient) to .10. Those living in .10 BAC states were asked if their state's level should be lowered (made stricter) to .08 or stay at the current level.

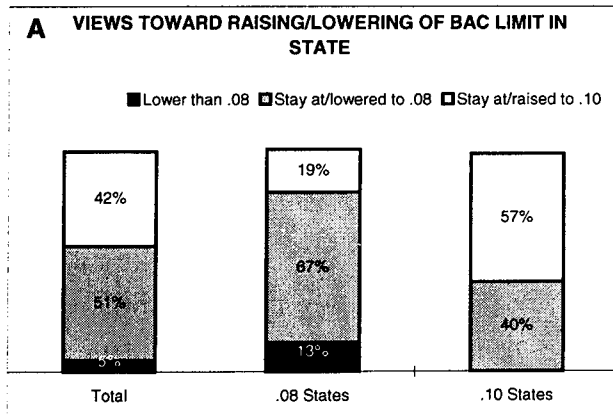
### **Views Toward the Raising/Lowering of State's BAC Limit**

A majority of those aware of BAC levels support a BAC limit of .08 or stronger. More than half (56%) of those age 16 to 64 who have heard of BAC levels feel that their state's BAC level should remain at, (for those in .08 states) or be lowered to (for those .10 states) a .08 BAC level. Eight of ten (80%) of these residents in current .08 states feel that the limit should remain at .08, or be made even stricter, while about 40% of those in .10 states feel that the limit should be lowered to .08. [Figure 22-A]

### **By Race**

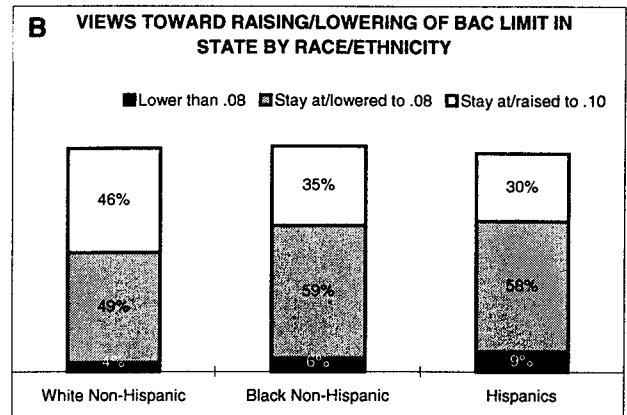
Non-Hispanic Whites are less likely than Non-Hispanic Blacks or Hispanics to feel that the BAC limit should be 0.08, with about 49% supporting a BAC limit of .08. In contrast, six of ten non-Hispanic Blacks (59%), and Hispanics (61% ) feel that the BAC level should stay at .08 (if they live in a .08 state) or be dropped to .08 (if they live in a .10 state). [Figure 22-B]

**FIGURE 22: ACCEPTANCE OF .08 BAC LIMIT**



*Qx: The BAC limit in your state is currently .08. In your opinion, should the BAC level in your state be raised, that is made looser to a level of .10 or should it stay at its current level of .08?*

*Qx: The BAC limit in your state is currently .10. In your opinion, should the BAC level in your state be lowered, that is, made stricter to a level of .08 or should it stay at its current level of .10? [Base: 1995 & 1997 data heard of BAC levels in states noted. .08 states n=288, .10 states n=476]*



*Qx: The BAC limit in your state is currently .08. In your opinion, should the BAC level in your state be raised, that is made looser to a level of .10 or should it stay at its current level of .08?*

*Qx: The BAC limit in your state is currently .10. In your opinion, should the BAC level in your state be lowered, that is, made stricter to a level of .08 or should it stay at its current level of .10? [White n=630, Black n=47, Other n=87]*





## **Chapter 6: Motor Vehicle Crash and Injury Experience**

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The overriding goal in attempts to reduce alcohol-impaired driving is to reduce the resulting alcohol-related motor vehicle crashes, especially those that result in fatalities. This section examines experiences in motor vehicle crashes as both a passenger and a driver, specifically it covers the following topics:

- Involvement in motor vehicle crash in past year as a driver
- Consumption of alcohol by respondent as driver prior to the crash
- Resulting injuries from crash as the driver
- Involvement in motor vehicle crash in past year as a passenger
- Consumption of alcohol by driver of prior to the crash
- Resulting injuries from crash as a passenger

## **Involvement in Motor Vehicle Crash, Past Year**

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### **Involved in Vehicle Crash as Driver, Past Year**

One in ten (10%) drivers were involved in a motor vehicle crash in the past year while driving a motor vehicle. Motor vehicle crashes were less likely to be reported by American Indian/Eskimo drivers age 16-64. [Figure 23-A]

Non-Hispanic Black and Hispanic drinker-drivers were almost twice as likely than others to report involvement in a past-year motor vehicle crash, with 18% of persons in these racial groups reporting a crash. [Figure 23-B]

### **Consumption of Alcohol Prior to Crash, Crashes as a Driver**

The driver had consumed alcohol within two hours prior to driving in about 4% of the reported past-year motor vehicle crashes. Non-Hispanic Black and Hispanic drivers who report involvement in a crash as a driver are almost twice as likely to report that they had consumed alcohol within two hours prior to driving (about 8%). [Figure 23-C]

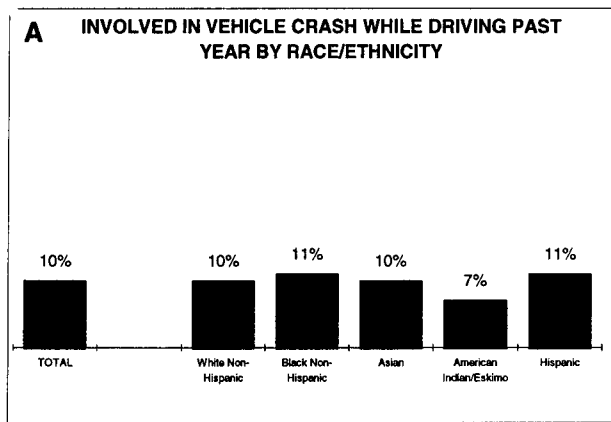
### **Passenger in Vehicle Crash, Past Year**

About 4% of the driving age public has been involved in a motor vehicle crash as a passenger in the past year. Asians and Hispanics are the most likely to have been a passenger in a vehicle crash in the past year. [Figure 23-D]

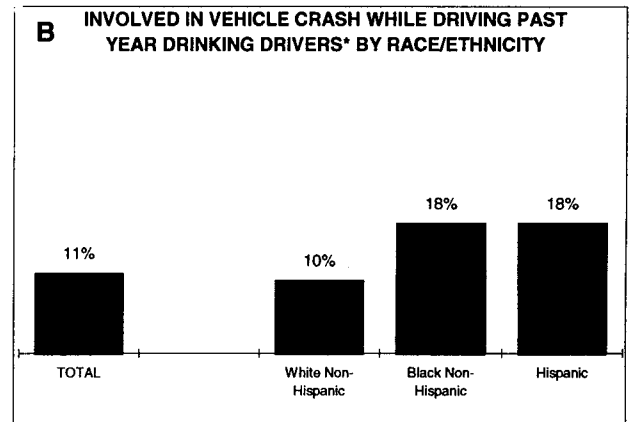
### **Consumption of Alcohol Prior to Crash, Crashes as a Passenger**

The driver had consumed alcohol within two hours prior to driving in about 10% of the motor vehicle crashes where a person of driving age was involved as a passenger. Non-Hispanic White and non-Hispanic Black passengers of motor vehicle crashes are more likely than other involved passengers to say that alcohol was involved. [Figure 23-E]

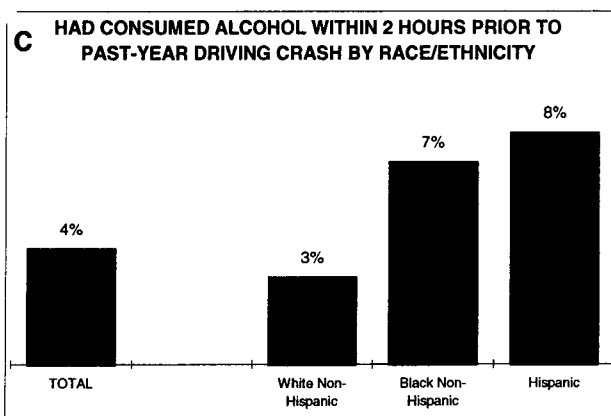
**FIGURE 23: INVOLVEMENT IN MOTOR VEHICLE CRASH, PAST YEAR**



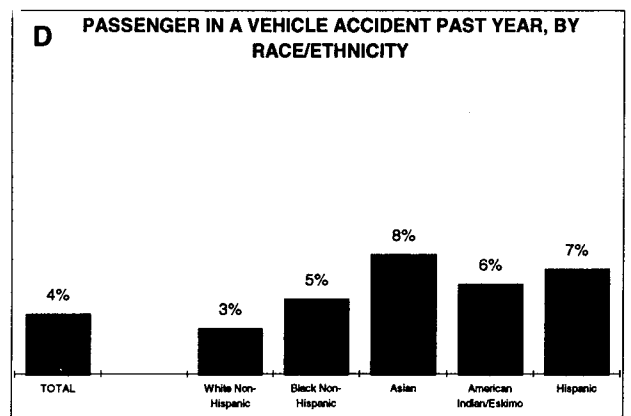
Qx: In the past 12 months, have you had an accident while driving a motor vehicle? [Base: 1995 & 1997 data: drivers]\*\*



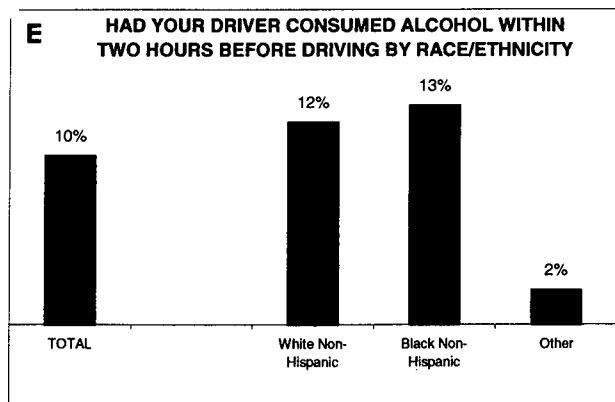
Qx: In the past 12 months, have you been involved in a crash while driving a motor vehicle? [Base: 1995 & 1997 data: drinking drivers\*]



Qx: Had you consumed alcohol within two hours prior to the crash? [Base: 1995 & 1997 data: involved in crash as driver, past year\*\*]



Qx: In the past 12 months, have you been in an accident while you were a passenger? [Base: 1995 & 1997 data: all respondents\*\*]



Qx: Had your driver consumed alcohol within two hours before getting behind the wheel? [Base: 1995 & 1997 data: involved in a crash as a passenger, past year\*\*]

\*Drinking drivers: drove within two hours after drinking alcohol

\*\*Sample base for figures on this page:

	Total	Non-Hispanic White	Non-Hispanic Black	Other Race (Net)	Asian	American Indian/Eskimo	Hispanic
Total	6829	5166	675	988	182	122	504
Drivers	6542	5035	607	90	162	108	467
Involved in crash while driving	675	510	67	49	-	-	49
Passenger in crash	285	190	36	59	-	-	-
Drinking-drivers*	1646	1394	99	70	-	-	83

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Skinner, H.D. and Holt, S. *The Alcohol Clinical Index: Strategies for Identifying Patients with Alcohol Problems*. Toronto, Addiction Research Foundation

Balmforth, D. *National Survey of Drinking and Driving: 1997*. NHTSA Technical Report, USDOT HS 808 844